

AR TARGET SHEET

The following document was too large to scan as one unit, therefore, it has been broken down into sections.

EDMC#: 0059434

SECTION: 3 OF 3

DOCUMENT #: DOE/RL-2003-20

TITLE: CY 2002 Hanford Site Mixed
Waste LDR Report

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability Group Name:** MLLW-05 - Elemental Lead
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable)**

This treatability group is for waste that is determined to meet the "Radioactive Lead Solids Subcategory" as described in 40 CFR 268.40. Applicable WSRds for this treatability group are: EPB, 800, 801, 803. This treatability group consists of many different forms of radioactive lead solids including bricks, sheets, shot-filled blankets, lead-lined debris items where the lead comprises more than 50% of the waste matrix. The waste was and is generated by many onsite generating organizations and offsite generators.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 **Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 429.208
- 2.2 **Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	2.522		
2004	23.747		
2005	22.451		
2006	17.435		
2007	16.021		
Total	82.176		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological Characteristics**
- 3.1.1 **Mixed waste type:** ☐ High-level ☐ Transuranic ☒ Low-level

- 3.1.2 **Handling (as package contents would need to be handled during treatment):**

☒ Contact-handled ☐ Remote-handled

- 3.1.3 **Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**

Since this waste is a general category based on dangerous waste physical characteristics, the radiological characteristics are expected to vary greatly. However, there is high confidence that the waste is MLLW. The waste as packaged is considered Contact-Handled (i.e., less than or equal to 200mR/hr on outside package surface); however, the dose rate of some waste inside the package may exceed 200mR/hr.

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3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid ☐ Liquid ☐ Semi-solid ☐ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

Waste received under the Waste Specification System (WSS) has a high confidence level that the physical matrix characteristics meet the waste stream description. Waste received prior to the WSS being implemented has a low to medium confidence level. For this older waste, the matrix characterization will be verified prior to sending it to treatment and disposal. If during the verification process, it is determined that some of the waste does not meet the MLLW-05 waste stream description, it will be reassigned into the appropriate waste stream (e.g., MLLW-04A or -04B).

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Ignitable Charac.	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D002	Corrosive	Corrosive Charac.	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D004	TC-Arsenic	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D005	TC-Barium	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D006	TC-Cadmium	Cadmium Charac.	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D007	TC-Chromium	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D008	TC-Lead	Rad. Lead Solids	***	***	MACRO (40 CFR 268.40)
D009	TC-Mercury	Low Mercury	<260 mg/kg	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D010	TC-Selenium	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D011	TC-Silver	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D018	Benzene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D019	Carbon Tetrachloride	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D022	Chloroform	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D023	o-Cresol	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D028	1,2-Dichloroethane	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D029	1,1-Dichloroethylene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D030	2,4-Dinitrotoluene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D033	Hexachlorobutadiene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D035	Methyl Ethyl Ketone	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D038	Pyridine	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D039	Tetrachloroethylene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D040	Trichloroethylene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
D043	Vinyl Chloride	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
F001	1,1,1-Trichloroethane	Spent Solvent	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
F002	Methylene Chloride	Spent Solvent	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
F003	Acetone & Hexone	Spent Solvent	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
F004	o-Cresol & p-Cresol	Spent Solvent	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
P012	Arsenic Trioxide	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
U044	Chloroform	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
U203	Safrole	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
U228	Trichloroethylene	N/A	***	***	Alternative Treatment Stds. for Haz. Debris (40 CFR 268.45)
WP01	Persistent, DW	N/A	***	***	None (1)
WP02	Persistent, DW	N/A	***	***	N/A
WSC2	Solid Corrosive Acid	N/A	***	***	Remove Solid Acid Charac.
WT01	Toxic, EHW	N/A	***	***	None (1)
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

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*** The concentration varies and is based on process knowledge and/or analytical data.

(1) Mixed extremely hazardous wastes may be land-disposed in Washington State in DOE facilities in accordance with RCW 70.105.050(2).

UHC identification not required for D008 radioactive lead solids and hazardous debris when using alternative treatment standards for hazardous debris.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

3.3.4 Does this waste stream contain PCBs?

- ☒ Yes ☐ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- ☐ Yes ☒ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

- ☒ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

- ☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Waste received under the WSS has a high confidence level that the regulated contaminant characteristics meet the prescribed treatability group. Waste received prior to the WSS implementation has a low to medium confidence level and will require some characterization verifications prior to sending it to treatment and disposal. If, during the verification process, it is determined that some of the waste does not meet the MLLW-05 Treatability Group, then it will be reassigned into the appropriate waste stream (e.g., MLLW-04A or -04B).

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

- ☐ Yes ☒ No

If yes, provide details: N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.2 **Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.**

- ☐ No treatment required (skip to Section 5.0)
☒ Treating or plan to treat on site
☒ Treating or plan to treat off site
☒ Treatment options still being assessed

- 4.3 **Planned treatment method, facility, extent of treatment capacity available:**

RCRA specifies that this waste type (D008) be treated via macroencapsulation without using a sealed container. Treatment will be performed by means of onsite and offsite commercial treatment contracts, and/or by onsite treatment units.

- 4.4 **Treatment schedule information:**

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

- 4.5 **Applicable Tri-Party Agreement treatment milestone numbers (including permitting):**

Milestone Number	Due Date
N/A	N/A

- 4.6 **Proposed new Tri-Party Agreement treatment milestones:**

See Section 4.4.

- 4.7 **If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**

- ☐ Yes ☐ No ☒ Unknown

If yes, describe: When feasible and/or practical, decontamination and segregation will be performed on this waste to reduce the ultimate disposal volumes.

- 4.8 **List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.**

None.

- 4.9 **Key Assumptions:**

To dispose of non-F001-F005 listed waste, the ETF delisting petition must be modified to manage the leachate generated from the mixed waste trenches.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Subject waste ultimately will be disposed of in mixed waste trenches located on the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 222-S Laboratory Complex **Waste Stream:** 222-S Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead

1.2 Applicable profile number(s) for this waste stream:
None.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Radioactive lead solids subcategory waste is generated during general laboratory operations (e.g. hot cell, analytical procedures, and 219-S WHF operations). Lead solids are bricks, shot, and manipulators that are elemental lead and not debris.

1.3.2 History of how and where the waste was/is generated:

Waste is generated during laboratory operations (e.g. dangerous mixed waste storage area (DMWSA), hot cell, analytical hoods, and 219-S WHF operations). Normally the lead is used as shielding from radiation during Laboratory activities in high radiological contaminated areas.

1.3.3 Source of the regulated constituents:

The source of hazardous constituents is Hanford generating facilities (e.g. Tank Farms, K-Basins, PFP, ETF, ERDF, etc.).

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Waste was managed per the Hanford Facility Dangerous Waste Permit Application, 222-S Laboratory Complex (DOE/RL-91-27 Revision 1).

2.1.2 Timeframe when waste was placed to storage?

06/1999 - 12/31/2002.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

This was based on the SWITS specific to the 222-S Laboratory.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.310		
2004	0.310		
2005	0.310		
2006	0.310		
2007	0.310		
Total	1.550		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-01-018	12/03/2001

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-22	12/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: 9/2000

If yes, provide document number or other identification:

Operating and analytical procedures at 222S Laboratory.

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

222-S personnel minimize waste through proper planning during AJHA and pre-jobs and optimizing use of lab ware. 222-S Laboratory personnel seek innovative technology that will allow them to minimize waste.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

7.300 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

DOE/RL-2000-79- "Pollution Prevention Accomplishments" document reported waste reduction for CY 2000. The waste reduction volume reported in Section 3.3.1 is a total waste minimization volume for similar waste streams across the 222-S Laboratory; this waste stream may be a portion of what was reported. 222-S has no waste minimization goals for this waste stream; therefore, no projected future waste volume reductions are reported in Section 3.3.2. However, the analytical process generating this waste stream is continuously evaluated for waste minimization opportunities.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name: 324 Waste Stream: Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead
- 1.2 Applicable profile number(s) for this waste stream:
N/A
- 1.3 Waste stream source information
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):
Lead blocks, lead bricks, lead blankets, lead sheets, and lead shot.
- 1.3.2 History of how and where the waste was/is generated:
Lead items were used for shielding or counter balances.
- 1.3.3 Source of the regulated constituents:
Lead.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)
Process knowledge.
- 1.3.5 Additional notes:
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 Current storage method
- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):
- 2.1.1 How was the waste managed prior to storage?
N/A
- 2.1.2 Timeframe when waste was placed to storage?
N/A
- 2.2 Storage inventory locations:
- | Building/Room Number | Number of Containers/Tanks |
|----------------------|----------------------------|
| N/A | |

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste is being accumulated in SAA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

- ☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list): N/A
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	19.200		
2005	19.200		
2006	12.800		
2007	12.800		
Total	64.000		

2.7 DOE Storage Compliance Assessment information:

- ☐ Assessment has been completed.

Document Number

Date

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- ☐ Assessment has been scheduled. Scheduled date:
☒ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Assessment not scheduled at this time.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Lead items will be reused, excessed or recycled. Purchasing of new lead materials will be limited.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** 327 **Waste Stream:** Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Lead bricks, lead sheets, lead blankets, and lead shot.
- 1.3.2 **History of how and where the waste was/is generated:**
Lead items were used to provide shielding, or were used as manipulator counter balances.
- 1.3.3 **Source of the regulated constituents:**
Lead.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.):**
Process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
N/A	

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste is being accumulated in SAA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list): N/A

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	1.500		
2005	0.000		
2006	1.500		
2007	0.000		
Total	3.000		

2.7 DOE Storage Compliance Assessment Information:

☐ Assessment has been completed.

Document Number	Date

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Not scheduled at this time.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Excess of unused and uncontaminated lead. Purchasing of new lead items will be limited.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: CWC Waste Stream: Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The waste consists of elemental lead solids (bricks, shot, gloves, shielding, etc.). The lead may be commingled with heterogeneous debris or the lead may be a component of a debris article.

1.3.2 History of how and where the waste was/is generated:

The waste was generated at many onsite locations and also by offsite generators.

1.3.3 Source of the regulated constituents:

See 1.3.1 and 1.3.2.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Accumulated and packaged by waste generators prior to storage at CWC.

2.1.2 Timeframe when waste was placed to storage?

Waste storage began at CWC in 1988 and continues.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	1,138

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 429.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Based on inventory residing at the CWC as reported in SWITS for WSRds EPB, 800, 801, and 803.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead

1.2 Applicable profile number(s) for this waste stream:

Not yet developed.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Elemental lead previously used for shielding.

1.3.2 History of how and where the waste was/is generated:

Elemental lead previously used for shielding.

1.3.3 Source of the regulated constituents:

Intrinsically hazardous.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)

☐ Tank ☐ DST ☐ SST

☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Lead is used as shielding prior to being declared waste. Lead will not be stored, it will go to a satellite accumulation area/90 day accumulation area.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

- ☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.360		
2004	0.700		
2005	0.700		
2006	0.360		
2007	0.200		
Total	2.320		

2.7 DOE Storage Compliance Assessment information:

- ☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

- ☐ Assessment has been scheduled. Scheduled date:
☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

Will be characterized before transfer to CWC. No commitment is necessary for the characterization needs on this MLLW.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter# M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP routinely evaluates the use of lead to ensure that its use is appropriate and necessary. Lead with no justifiable use will be either recycled, if possible, or discarded as waste and not reorder.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program which looks for further opportunities to reduce waste production or recycle.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Unit/Plant name:** T Plant Complex **Waste Stream:** Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead

1.2 **Applicable profile number(s) for this waste stream:**
800

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Radioactive lead solids.

1.3.2 **History of how and where the waste was/is generated:**

Light-bulb tips.

1.3.3 **Source of the regulated constituents:**

See 1.3.1 and 1.3.2

1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge.

1.3.5 **Additional notes:**

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 **Current storage method**

- ☒ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 **How was the waste managed prior to storage?**

Generated during routine maintenance and packaged accordingly.

2.1.2 **Timeframe when waste was placed to storage?**

2002.

2.2 **Storage inventory locations:**

Building/Room Number	Number of Containers/Tanks
T Plant Complex	1

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.208

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
01-A&E-012	11/28/2000

☒ Assessment has been scheduled. Scheduled date: 3rd quarter CY2005

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

To the extent practical, all mixed waste waste is segregated and packaged separately from LLW. The volume of mixed waste is reduced by compoaction where possible. To minimize the generation of mixed waste, T Plant Complex personnel actively seek non-dangerous waste alternatives. In addition, waste minimization goals are set annually and tracked quarterly.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

The T Plant Complex has submitted a P2/Wmin fiscal year 2003 goal to reduce, where possible, mixed waste generation. For FY 2003 to 2007, new goals will be evaluated and identified on a year-by-year basis. T Plant Complex does not track waste reduction by treatability groups. Routine and non-routine generated waste is reported quarterly to the Wmin/P2 group.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: Tank Farm Facilities Waste Stream: Elemental Lead
Treatability Group Name: MLLW-05 - Elemental Lead

1.2 Applicable profile number(s) for this waste stream:
800.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Lead waste includes raw lead, lead shots, lead bricks, lead sheets and lead wool which are used in a variety of applications to shield and reduce radiation exposure dose rates.

1.3.2 History of how and where the waste was/is generated:

Lead in variety of shapes or forms is used for shielding during operation, upgrades and clean up at the DST System and SST System. When it is determined that this lead is unusable, it is disposed of.

1.3.3 Source of the regulated constituents:

The lead itself is hazardous, it can also be contaminated with tank waste.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

MSDS and process knowledge. "Tank Farm Solid Waste Characterization Guide with Sampling and Analysis Attachment", HNF-SD-WM-PLN-119, REV. 01, describes the basis for historical and process knowledge; and sampling plan for tank farm solid waste.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
N/A	

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Managed in SAA and 90 day accumulation areas.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

- ☐ Current Location
 ☐ CWC
 ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	1.852		
2004	2.037		
2005	2.241		
2006	2.465		
2007	2.711		
Total	11.306		

2.7 DOE Storage Compliance Assessment information:

- ☐ Assessment has been completed.

Document Number	Date

- ☐ Assessment has been scheduled. Scheduled date: N/A

- ☒ Other. Explain: N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Unknown at this time.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

1) Survey and release lead items; 2) Recycle lead; and 3) Reduce the amount of lead taken into rad zone.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

No projected volume reduction at this time, because the volume generated is very small.

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LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability Group Name:** MLLW-06 - Elemental Mercury
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable)**

This treatability group is for waste that is determined to meet the "Elemental Mercury Contaminated with Radioactive Materials" subcategory as described in 40 CFR 268.40. Applicable WSRds for this treatability group are: EHG, HHG, 810, 811, and 812. This treatability group consists of liquid mercury, partially amalgamated mercury, mercury spill cleanups, and some debris waste items packaged in with the mercury waste.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 **Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 13.000
- 2.2 **Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	0.560		
2004	1.600		
2005	0.700		
2006	4.310		
2007	0.200		
Total	7.370		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological Characteristics**
- 3.1.1 **Mixed waste type:** ☐ High-level ☐ Transuranic ☒ Low-level

- 3.1.2 **Handling (as package contents would need to be handled during treatment):**

☒ Contact-handled ☐ Remote-handled

- 3.1.3 **Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**

Since this waste is a general category based on dangerous waste physical characteristics, the radiological characteristics are expected to vary greatly. However, there is a high confidence that the waste is MLLW. The waste as packaged is considered Contact-Handled (i.e., less than or equal to 200mR/hr on outside package surface); however, the dose rate of some waste inside the package may exceed 200mR/hr.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid ☐ Liquid ☐ Semi-solid ☐ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

Waste received under the Waste Specification System (WSS) has a high confidence level. Waste received prior to the implementation of the WSS has a low to medium confidence level. For this older waste, the matrix characterization will be verified prior to being sent to treatment and disposal. If during the verification process, it is determined that some of the waste does not meet the MLLW-06 waste stream description, it will be reassigned into the appropriate waste stream (e.g., MLLW-02, MLLW-03, etc.).

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Ignitable Charac.	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D002	Corrosive	Corrosive Charac.	***	***	Alternative treatment stds for Haz. Debris (40 CFR 268.45)
D004	TC-Arsenic	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D005	TC-Barium	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D006	TC-Cadmium	Cadmium Charac.	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D007	TC-Chromium	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D008	TC-Lead	Lead Charac.	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D009	TC-Mercury	Elemental	***	***	Amalgamation
D009	TC-Mercury	High Mercury	>260 mg/kg	***	RMERC
D011	TC-Silver	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D019	Carbon Tetrachloride	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D022	Chloroform	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D028	1,2-Dichloroethane	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D035	Methyl Ethyl Ketone	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
D040	Trichloroethylene	N/A	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
F002	Methylene Chloride	Spent Solvent	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
F003	Acetone & Hexone	Spent Solvent	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	Alternative Treatment stds for Haz. Debris (40 CFR 268.45)
U151	Mercury	Elemental	***	***	Amalgamation
WP01	Persistent, EHW	N/A	***	***	None (1)
WSC2	Solid Corrosive	N/A	***	***	Remove solid-acid charac.
WT01	Toxic, EHW	N/A	***	***	NONE(1)
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

***The concentration varies and is based on process knowledge and/or analytical data.

(1) Mixed extremely hazardous wastes may be land-disposed in Washington State in DOE facilities in accordance with RCW 70.105.050(2).

UHC identification not required for D009 elemental mercury and hazardous debris when using the alternative treatment standards for hazardous debris.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Waste received under the WSS has a high confidence level. Waste received prior to the implementation of the WSS has a low to medium confidence level. Much of the elemental mercury has been amalgamated by the generator due to spill cleanups and safe handling concerns. However, the amalgamation has not been certified as meeting the LDR treatment standard AMLGM. A good portion of the currently stored inventory of this waste will require characterization verifications prior to it being sent to treatment and disposal.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Mercury amalgamation per the Treatment Standards for Hazardous Wastes (40 CFR 268.40) is the specified treatment technology for elemental mercury. Treatment will be performed by means of commercial contracts, and/or by onsite treatment units. Currently, there is very limited treatment capacity in the U.S. for this waste treatability group.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

LDR REPORT TREATABILITY GROUP DATA SHEET

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes ☐ No ☐ Unknown

If yes, describe: N/A based on 4.2.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

A treatability equivalency may be pursued for this treatability group due to the physical form (partially amalgamated) of much of the waste in this group. A separate request is being considered on the DOE complex level to provide a variance that allows macroencapsulation of mercury-containing batteries instead of RMERC.

4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Subject waste ultimately will be disposed of in mixed waste trenches located on the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** 327 **Waste Stream:** Elemental Mercury
Treatability Group Name: MLLW-06 - Elemental Mercury
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Discarded pressure switches, and thermostats.
- 1.3.2 **History of how and where the waste was/is generated:**
Used pressure switches, and thermostats in radiological contaminated areas.
- 1.3.3 **Source of the regulated constituents:**
Pressure switches and thermostats containing hazardous constituents.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 **Current storage method**
- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):
- 2.1.1 **How was the waste managed prior to storage?**
N/A
- 2.1.2 **Timeframe when waste was placed to storage?**
N/A
- 2.2 **Storage inventory locations:**
- | Building/Room Number | Number of Containers/Tanks |
|----------------------|----------------------------|
| N/A | |

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste is being accumulated in SAA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list): N/A

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.200		
2004	0.000		
2005	0.000		
2006	0.200		
2007	0.000		
Total	0.400		

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Not scheduled at this time.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Recycling of radiological released thermostats and pressure switches, when possible.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** CWC **Waste Stream:** Elemental Mercury
Treatability Group Name: MLLW-06 - Elemental Mercury
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
This waste stream consists of elemental mercury, amalgamated mercury, and debris articles containing small amounts of elemental mercury in their components (mercury switches, thermometers, etc).
- 1.3.2 **History of how and where the waste was/is generated:**
The waste was generated at many onsite locations and by offsite generators.
- 1.3.3 **Source of the regulated constituents:**
See 1.3.1 and 1.3.2.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Analytical data and process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 **Current storage method**

- ☐ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 **How was the waste managed prior to storage?**

Accumulated and packaged by waste generators prior to storage at CWC.

2.1.2 **Timeframe when waste was placed to storage?**

Waste storage at CWC began in 1988 and continues.

2.2 **Storage inventory locations:**

Building/Room Number	Number of Containers/Tanks
CWC	64

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 13.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Volumes based on SWITS information for WSRds EHG, HHG, 810, 811, and 812.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.900		
2005	0.000		
2006	3.750		
2007	0.000		
Total	4.650		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

- 2.11 Characterization**

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number Due Date

N/A	N/A
-----	-----

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number Due Date

N/A	N/A
-----	-----

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number Due Date

N/A	N/A
-----	-----

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

The waste generation projections are for waste expected to be received from Battelle Columbus Laboratories.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** PFP **Waste Stream:** Hg, Elemental
Treatability Group Name: MLLW-06 - Elemental Mercury
- 1.2 **Applicable profile number(s) for this waste stream:**
Not yet developed.
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Discarded pressure switches and thermostats.
- 1.3.2 **History of how and where the waste was/is generated:**
Used pressure switches and thermostats in radiological contaminated areas.
- 1.3.3 **Source of the regulated constituents:**
Pressure switches and thermostats containing hazardous constituents.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.):**
Process knowledge
- 1.3.5 **Additional notes:**
None

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 **Current storage method**

- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 **How was the waste managed prior to storage?**

N/A

2.1.2 **Timeframe when waste was placed to storage?**

N/A

2.2 **Storage inventory locations:**

Building/Room Number	Number of Containers/Tanks

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste is being accumulated in SAA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

- ☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list): NA
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.360		
2004	0.700		
2005	0.700		
2006	0.360		
2007	0.200		
Total	2.320		

2.7 DOE Storage Compliance Assessment information:

- ☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

- ☐ Assessment has been scheduled. Scheduled date:
☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain:

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

See section 3.2 below.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP routinely evaluates the use of mercury to ensure that it is appropriate and necessary. Mercury with no justifiable use will be either recycled, if possible, or discarded as waste and not reorded.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program which looks for further opportunities to reduce waste production or produce waste in a less hazardous form.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

1.1 **Treatability Group Name:** MLLW-07 - RH and Large Container

1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable)**

WSRs: DBL, HRW, 450, 550, 650. This waste stream is comprised of RH-MLLW with various chemical (organics, inorganics, metals) and physical (particulates, debris, sludges, etc.) characteristics. Many different regulated constituents could be represented in this waste stream; however, the primary waste type is heterogeneous debris from the SST/DST Systems operations. This waste stream also contains waste in oversized containers, not typically suited for commercial treatment, that will be treated using the M-91 MLLW capability.

2.0 WASTE INVENTORY AND GENERATION

2.1 **Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**

Total volume (cubic meters): 80.624

2.2 **Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	176.750		
2004	338.150		
2005	305.150		
2006	279.150		
2007	279.150		
Total	1,378.350		

3.0 WASTE STREAM CHARACTERIZATION

3.1 **Radiological Characteristics**

3.1.1 **Mixed waste type:** ☐ High-level ☐ Transuranic ☒ Low-level

3.1.2 **Handling (as package contents would need to be handled during treatment):**

☐ Contact-handled ☒ Remote-handled

3.1.3 **Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**

RH waste must be shielded down to CH levels before it can be accepted into the CWC; therefore, RH waste packages in CWC are actually input into SWITS as CH. To determine if a CWC waste package contains RH waste, the radionuclide, dose rate, physical form and generator information in SWITS is reviewed for clues that might lead a reviewer to believe a waste may be RH.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid
 ☐ Liquid
 ☐ Semi-solid
 ☐ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

Waste received under the Waste Specification System (WSS) has a high confidence level. Waste received prior to the implementation of the WSS has a low to medium confidence level. For this older waste, the matrix characterization will be verified prior to being sent to treatment and disposal. If during the verification process, it is determined that some of the waste does not meet the MLLW-07 waste stream description, it will be reassigned into the appropriate waste stream (e.g., MLLW-02, MLLW-03, etc.).

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater
 ☒ Non-wastewater
 ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Ignitable charac.	***	***	DEACT & meet 40 CFR 268.48
D002	Corrosive	Corrosiv charac.	***	***	DEACT & meet 40 CFR 268.48
D006	TC-Cadmium	Cadmium charac	***	***	0.11 mg/l TCLP & meet 40 CFR 268.48
D007	TC-Chromium	N/A	***	***	0.60 mg/l TCLP & meet 40 CFR 268.48
D008	TC-Lead	Lead charac.	***	***	0.75 mg/l TCLP & meet 40 CFR 268.48
D011	TC-Silver	N/A	***	***	0.14 mg/l TCLP & meet 40 CFR 268.48
F001	1,1,1-Trichlorethane	Spent Solvent	***	***	6.0 mg/kg
F002	Methylene Chloride	Spent Solvent	***	***	30 mg/kg
F003	Acetone & Hexone	Spent Solvent	***	***	160 mg/kg
F004	o-Cresol & p-Cresol	Spent Solvent	***	***	5.6 mg/kg
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	36 mg/kg
WP01	Persistent, EHW	N/A	***	***	NONE(1)
WP02	Persistent, DW	N/A	***	***	N/A
WT01	Toxic, EHW	N/A	***	***	NONE (1)
WT02	Toxic, DW	N/A	***	***	N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

(1) Mixed extremely hazardous wastes may be land-disposed in Washington State in DOE facilities in accordance with RCW 70.105.050(2).

UHCs to be determined on a per package basis during waste "up-grading" and/or when the waste is sent for treatment.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

3.3.4 Does this waste stream contain PCBs?

- ☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- ☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

- ☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

- ☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Subject waste will undergo characterization verifications as part of the past-practice waste stream upgrading program. Once the waste meets all the upgrading requirements, it will be assigned to the appropriate WSS WSRd associated with the proper waste stream. Portions of the waste have met the rigors of the WSS for waste storage and treatment. However, the WSS came into effect in 1995 and was based on the dangerous waste regulations imposed at that time. There have been several changes to the dangerous waste regulations since then that impose additional characterization requirements onto the generator, namely identification of UHCs for all waste designated with a characteristic waste code (i.e., D001 through D043).

LDR REPORT TREATABILITY GROUP DATA SHEET

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Treatment options are being addressed as part of the Project Management Plan specified in TPA Milestone M-91-10.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
M-091-10	06/30/1999
M-091-15	06/30/2008

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes ☐ No ☐ Unknown

If yes, describe: N/A based on 4.2.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

None.

4.9 Key Assumptions:

None.

LDR REPORT TREATABILITY GROUP DATA SHEET

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Subject waste ultimately will be disposed of in mixed waste trenches located on the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 222-S Laboratory Complex **Waste Stream:** MLLW-07, Shielded Debris
Treatability Group Name: MLLW-07 - RH and Large Container

1.2 Applicable profile number(s) for this waste stream:

WMFH-627-0003-Current Revision; 222S-647-0001-00; 222S-650-0001-00.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Debris waste generated from laboratory operations (e.g., analytical procedures, hot cell, maintenance, etc.).

1.3.2 History of how and where the waste was/is generated:

This waste is generated at the 222-S Laboratory from operations including analytical procedures, hot cell, 219-S WHF, etc.

1.3.3 Source of the regulated constituents:

Laboratory standards and reagents and unused samples may result in contaminated debris. The 222-S Laboratory receives mostly tank Farms samples resulting in all waste designating as F001-F005. Samples may come from any Hanford generating facility (e.g., ETF, ERDF, K-Basins, etc.).

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Waste Contents Inventory Sheets, MSDSs, Waste Stream Fact Sheets.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Waste was managed per the Hanford Facility Dangerous Waste Permit Application, 222-S Laboratory Complex (DOE/RL-91-27 Revision 1).

2.1.2 Timeframe when waste was placed to storage?

12/1998-12/2002.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
HS-0083A	2
HS-0083B	1

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.624

Date of inventory values: 01/06/2003

Comments on waste inventory:

This data was generated from SWITS specific to 222-S Laboratory.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.150		
2004	0.150		
2005	0.150		
2006	0.150		
2007	0.150		
Total	0.750		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-01-018	12/03/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-22	12/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: 9/2000

If yes, provide document number or other identification:

Operating and analytical procedures at the 222-S Laboratory Complex.

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

222-S personnel optimize use of lab ware during waste generation to minimize waste generation through proper planning during AJHA and pre-jobs. 222-S personnel seek innovative technology which allows them to minimize more waste.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

222-S has no waste minimization goals for this waste stream. However, the analytical process generating this stream is continuously evaluated for waste minimization opportunities.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 325 HWTU **Waste Stream:** MLLW-07 RH
Treatability Group Name: MLLW-07 - RH and Large Container

1.2 Applicable profile number(s) for this waste stream:

PNNL ships shielded debris under the following profiles: PNNL-627-0004-00, PNNL-627-0007-00, PNNL-647-0001-00, PNNL-647-0004-00, PNNL-647-0005-00.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Subject waste is generated from PNNL laboratory and hot cell operations.

1.3.2 History of how and where the waste was/is generated:

Waste is generated from routine operations at PNNL. - Laboratory analysis (physical and chemical) and other testing conducted on SST/DST waste and other high dose-rate substances and wastes.

1.3.3 Source of the regulated constituents:

This waste stream consists of debris contaminated with inorganic and organic regulated dangerous waste constituents.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Wastes are characterized as specified in PNNL Waste Stream Profiles.

1.3.5 Additional notes:

Wastes are shielded to meet CH dose limits for CWC before shipping.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

The waste was managed in 90 day accumulation areas or SAAs within the hot cells prior to being transferred to this storage area.

2.1.2 Timeframe when waste was placed to storage?

There are currently no waste items that match this waste stream stored in the permitted areas at the 325 building.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values: 01/10/2003

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	28.600		
2004	3.000		
2005	3.000		
2006	3.000		
2007	3.000		
Total	40.600		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-DWR-02-004	05/31/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-20	06/30/1992

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

The inventory information is for what is currently in storage in the specified HWTU location(s). This includes current generation and/or M-091 wastes. The projections in section 2.6 of this data sheet include current generation and M-091 volumes.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Assessment date to be determined.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Laboratory staff routinely evaluate their processes to determine if less reagent volume or a less hazardous reagent can be used in the process. The Radioactive Waste Operations Group routinely assess the possibility of consolidating items for shipment to CWC.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

Projects generating wastes usually have strict requirements for process outcomes. Hence, it is not possible to project specific volume reductions. As noted in Section 3.2, each project generating this waste type is reviewed to assure that waste volumes generated are minimized.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** CWC **Waste Stream:** MLLW-07
Treatability Group Name: MLLW-07 - RH and Large Container
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Subject waste is from various sources, however, the primary waste type is heterogeneous debris from the SST/DST Systems operations. Waste also includes pre-FFCA waste from the Navy.
- 1.3.2 **History of how and where the waste was/is generated:**
The waste was generated at many onsite locations and by the Navy.
- 1.3.3 **Source of the regulated constituents:**
See 1.3.1 and 1.3.2.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Analytical data; process knowledge.
- 1.3.5 **Additional notes:**
Waste is shielded to meet contact handled dose limits for CWC.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 **Current storage method**
- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |
- 2.1.1 **How was the waste managed prior to storage?**
Accumulated and packaged by waste generators prior to storage at CWC.
- 2.1.2 **Timeframe when waste was placed to storage?**
Waste storage in CWC began in 1988 and continues.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	28

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 80.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Based on inventory residing at the CWC as reported in the SWITS for WSRds 450, 550, 650, DBL, and HRW.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- ☐ Assessment has been scheduled. Scheduled date:
- ☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

- ☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** T Plant Complex **Waste Stream:** RH and Large Container
Treatability Group Name: MLLW-07 - RH and Large Container
- 1.2 **Applicable profile number(s) for this waste stream:**
450
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Savannah River sample returns.
- 1.3.2 **History of how and where the waste was/is generated:**
Waste originally came from Tank Farms.
- 1.3.3 **Source of the regulated constituents:**
See 1.3.1 and 1.3.2.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge and analytical data.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☒ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

Generated by Tank Farms.

2.1.2 Timeframe when waste was placed to storage?

2000

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
T Plant Complex	4 containers (125 ml each)

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
01-A&E-012	11/28/2000

☒ Assessment has been scheduled. Scheduled date: 3rd quarter CY2005

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

Will be completed during activities to facilitate transfer of the container to onsite TSD unit or offsite TSD facility. No commitment is necessary for the characterization needs on this MLLW.

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before waste is shipped to the T Plant Complex. During treatment/bulking sample returns, efforts are taken to minimize the generation of mixed waste.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation of this waste by T Plant Complex other than during treatment/bulking sample returns.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: Tank Farm Facilities **Waste Stream:** MLLW-07 RH Mixed Waste
Treatability Group Name: MLLW-07 - RH and Large Container

1.2 Applicable profile number(s) for this waste stream:
606, 800, 801.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

This waste stream includes equipment removed from the DST System and SST System, which can include jumpers, pumps, instrument trees, sluicers, and water or air lances.

1.3.2 History of how and where the waste was/is generated:

Equipment has been removed from tanks in the DST System and SST System.

1.3.3 Source of the regulated constituents:

Equipment removed from the tank system have contacted tank waste. The source of hazardous constituents is tank waste.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

The process knowledge, and analytical data, and sampling plan are described in "Tank Farm Solid Waste Characterization Guide with Sampling and Analysis Attachment", HNF-SD-WM-PLN-119, Rev. 01.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | N/A | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste was accumulated in 90 day accumulation area.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

- ☐ Current Location
 ☐ CWC
 ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	148.000		
2004	335.000		
2005	302.000		
2006	276.000		
2007	276.000		
Total	1,337.000		

2.7 DOE Storage Compliance Assessment information:

- ☐ Assessment has been completed.

Document Number	Date

- ☐ Assessment has been scheduled. Scheduled date: N/A

- ☒ Other. Explain: N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

This waste is not a routinely generated.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Segregation between LLW and LLMW.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

No volume reduction is expected.

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LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability Group Name:** MLLW-08 - Unique Waste
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable)**
BER, 821, 823, 84A. This waste stream consists of unique wastes that requires special processing not typically employed for the other MLLW waste streams. Example includes beryllium powder, requiring RMETL or RTHRM. See 40 CFR 268.42 for the definitions of RMETL or RTHRM.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 **Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 20.240
- 2.2 **Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological Characteristics**
- 3.1.1 **Mixed waste type:** ☐ High-level ☐ Transuranic ☒ Low-level
- 3.1.2 **Handling (as package contents would need to be handled during treatment):**
☒ Contact-handled ☐ Remote-handled
- 3.1.3 **Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**
Since the waste is a general category based on dangerous waste physical characteristics, the radiological characteristics are expected to vary greatly. There is a high confidence that the waste is CH-MLLW.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid
 ☐ Liquid
 ☐ Semi-solid
 ☐ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

None.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater
 ☒ Non-wastewater
 ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Ignitable Charac.	***	***	DEACT and meet 40 CFR 268.48
F022	Process Waste Tetra- penta- or hexachloro-benzenes	N/A	***	***	Various see 40 CFR 268.40
F027	Various Dioxins	N/A	***	***	Various see 40 CFR 268.40
P015	Beryllium Dust	N/A	***	***	RMETL or RTHRM

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☐ Medium ☒ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

None.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

No treatment path is currently in place for this waste stream.

4.4 Treatment schedule information:

There are no treatment campaigns planned for this waste stream until after 2006, to allow the volume to accumulate for performance of more cost-effective treatment. Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes

☐ No

☐ Unknown

If yes, describe: N/A based on 4.2.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

None.

4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Treated waste will be disposed of in mixed waste trenches located on the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** CWC **Waste Stream:** Unique Waste
Treatability Group Name: MLLW-08 - Unique Waste
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
This waste stream consists of beryllium (P015), F022 contaminated waste, and F027 contaminated waste.
- 1.3.2 **History of how and where the waste was/is generated:**
The waste was generated at onsite locations and placed into storage at CWC.
- 1.3.3 **Source of the regulated constituents:**
See 1.3.1 and 1.3.2.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 **Current storage method**
- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |
- 2.1.1 **How was the waste managed prior to storage?**
Accumulated and packaged as waste by waste generators prior to storage at CWC.
- 2.1.2 **Timeframe when waste was placed to storage?**
Waste storage at CWC began in 1988 and continues.

2.2 **Storage inventory locations:**

Building/Room Number	Number of Containers/Tanks
CWC	3

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.600

Date of inventory values: 01/06/2003

Comments on waste inventory:

Based on inventory residing at the CWC as reported in SWITS for WSRds 821, 823, and BER. One container of WSRd "LPO", containing F027 waste and one container of WSRd "400" containing F022 waste are included in this waste stream. WSRds for these will be changed at a later time consistent with the "unique" waste stream classification.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (Includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned. This waste is not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before waste is transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no generation projected by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** T Plant Complex **Waste Stream:** MW Requiring Special Processing
- Treatability Group Name:** MLLW-08 - Unique Waste
- 1.2 **Applicable profile number(s) for this waste stream:**
84A.
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Waste that requires special processing and evaluation prior to treatment.
- 1.3.2 **History of how and where the waste was/is generated:**
Waste is generated at the T Plant Complex and is also received and stored at the T Plant Complex from various onsite locations and also by offsite generators
- 1.3.3 **Source of the regulated constituents:**
See 1.3.1 and 1.3.2.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge and analytical.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☒ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
- ☐ Tank ☐ DST ☐ SST
- ☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

Waste generated at the T Plant Complex and from onsite locations and also by offsite generators.

2.1.2 Timeframe when waste was placed to storage?

1995 through 2000.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
T Plant Complex	5

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 19.640

Date of inventory values: 12/31/2002

Comments on waste inventory:

Inventory will fluctuate as T Plant Complex generates waste, or performs waste storage and treatment/verification of onsite/offsite generators.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list): N/A
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
01-A&E-012	11/28/2000

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☒ Assessment has been scheduled. Scheduled date: 3rd quarter CY2005.

☐ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

Characterization needs are determined after the containers are opened and the contents are examined because the containers have failed verification. Once the containers are opened, the container is either reassigned to another treatability group/WSRd data sheet or it is declared non-mixed waste. Any containers declared non-mixed waste will be removed from the LDR report. Further characterization of mixed waste containers, if needed, is anticipated to be performed as necessary to support the results of the M-091 TPA dispute.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Waste minimization techniques are used, where possible, during generation and treatment processing.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.3.3 Bases and assumptions used in above estimates:

The T Plant Complex has submitted a P2/Wmin fiscal year 2003 goal to reduce, where possible, mixed waste generation. For FY 2003 to 2007, new goals will be evaluated and identified on a year by year basis. The T Plant Complex does not track waste reduction by treatability groups. Routine and non-routine generated waste is reported quarterly to the Waste Minimization/Pollution Prevention Group.

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LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability Group Name:** MLLW-09 - Lead-Acid and Cadmium Batteries
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)**
BAT, 802, 830. This waste consists of lead-acid and cadmium batteries from various onsite locations and from offsite generators.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 8.416
- 2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	0.370		
2004	0.910		
2005	4.310		
2006	0.570		
2007	0.210		
Total	6.370		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological Characteristics**
- 3.1.1 Mixed waste type:** ☐ High-level ☐ Transuranic ☒ Low-level
- 3.1.2 Handling (as package contents would need to be handled during treatment):**
☒ Contact-handled ☐ Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**
Since this waste is a general category based on dangerous waste physical characteristics, the radiological characteristics are expected to vary greatly. There is a high confidence that the waste is CH-MLLW.
- 3.2 Physical Form**
- 3.2.1 Physical form of the waste:**
☒ Solid ☐ Liquid ☐ Semi-solid ☐ Debris
☐ Other (Describe in comments.)
- 3.2.2 Comments on physical form:**
A typical container will have either lead-acid or cadmium batteries, but not both.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D002	Corrosive	Corrosive Charac.	***	***	DEACT and meet 40 CFR 268.48
D004	TC-Arsenic	N/A	***	***	5.0 mg/l TCLP and meet 40 CFR 268.48
D006	Cadmium	Cadmium Containing Batteries	N/A	Process Knowledge	RTHRM
D008	Lead	Rad Lead Solids	N/A	Process Knowledge	MACRO (2)
D009	TC-Mercury	Low Mercury	<260 mg/kg	***	0.20 mg/l TCLP and meet 40 CFR 268.48
WSC2	Solid Corrosive	N/A	<=2.5 pH	***	Remove Solid Acid Charac.
WT01	Toxic, EHW	N/A	***	***	N/A
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

(1) Mixed extremely hazardous wastes may be land-disposed in Washington State in DOE facilities in accordance with RCW 70.105.050(2).

(2) EPA has determined that the proper subcategory and the proper treatment standard for radioactively contaminated lead acid batteries are Radioactive Lead Solids and MACRO respectively. See letter dated August 9, 2001 from Elizabeth A Cotsworth, Director, Office of Solid Waste, EPA, to Andy Lawrence, Director, Office of Environmental Policy and Guidance, DOE.

UHCs to be determined on a per-package basis during waste receipt, from characterization activities, or when the waste is sent for treatment.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☐ Medium ☒ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Confidence is high that the waste packages contain lead acid or cadmium batteries.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

No treatment path is currently in place for this waste stream.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes

☐ No

☐ Unknown

If yes, describe: N/A based on 4.2.

- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

A request is being considered on the DOE complex level to provide a variance that allows macroencapsulation of cadmium-containing batteries instead of R THERM.

- 4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Treated waste will be disposed of in mixed waste trenches located on the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** 324 **Waste Stream:** Pb & Cd Batteries
Treatability Group Name: MLLW-09 - Lead-Acid and Cadmium Batteries
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Lead acid and cadmium batteries.
- 1.3.2 **History of how and where the waste was/is generated:**
Used lead acid and cadmium batteries.
- 1.3.3 **Source of the regulated constituents:**
Batteries containing hazardous constituents..
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 **Current storage method**
- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |
- 2.1.1 **How was the waste managed prior to storage?**
N/A
- 2.1.2 **Timeframe when waste was placed to storage?**
N/A
- 2.2 **Storage inventory locations:**
- | Building/Room Number | Number of Containers/Tanks |
|----------------------|----------------------------|
| N/A | |

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

SAA waste.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list): N/A

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.200		
2005	0.000		
2006	0.200		
2007	0.000		
Total	0.400		

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Not scheduled at this time.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Non-radiological contaminated batteries will be recycled, when possible.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** 327 **Waste Stream:** Pb & Cd Batteries
Treatability Group Name: MLLW-09 - Lead-Acid and Cadmium Batteries
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Lead acid and cadmium batteries.
- 1.3.2 **History of how and where the waste was/is generated:**
Batteries that were used in emergency lights and other equipment.
- 1.3.3 **Source of the regulated constituents:**
Batteries containing lead acid and cadmium.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 **Current storage method**
- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |
- 2.1.1 **How was the waste managed prior to storage?**
N/A
- 2.1.2 **Timeframe when waste was placed to storage?**
N/A
- 2.2 **Storage inventory locations:**
- | Building/Room Number | Number of Containers/Tanks |
|----------------------|----------------------------|
| N/A | |

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste is being accumulated in SAA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

2.5 Planned storage areas for this waste:

- ☐ Current Location ☒ CWC ☐ DST
- ☐ Other Area(s) (list): N/A
- ☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	3.600		
2006	0.000		
2007	0.000		
Total	3.600		

2.7 DOE Storage Compliance Assessment information:

- ☐ Assessment has been completed.

Document Number	Date

- ☐ Assessment has been scheduled. Scheduled date:

- ☒ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Not scheduled at this time.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Batteries that can be radiological released are recycled. Batteries that are radiological contaminated will be disposed of as mixed waste.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: CWC Waste Stream: Pb & Cd Batteries
Treatability Group Name: MLLW-09 - Lead-Acid and Cadmium Batteries

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The waste stream consists of regulated batteries.

1.3.2 History of how and where the waste was/is generated:

The waste was generated at many onsite locations and also by offsite generators.

1.3.3 Source of the regulated constituents:

See 1.3.1 and 1.3.2.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☐ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

Accumulated and packaged by waste generators prior to storage at CWC.

2.1.2 Timeframe when waste was placed to storage?

Waste storage at CWC began in 1988 and continues.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	35

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 8.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory based on data for containers residing at the CWC as reported in the SWITS for WSRd numbers BAT, 830, and 802.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Batteries, Lead
Treatability Group Name: MLLW-09 - Lead-Acid and Cadmium Batteries

1.2 Applicable profile number(s) for this waste stream:
Not yet developed.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Lead acid and cadmium batteries.

1.3.2 History of how and where the waste was/is generated:

Batteries that were used in emergency lights and other equipment.

1.3.3 Source of the regulated constituents:

Batteries containing lead acid and cadmium.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge

1.3.5 Additional notes:

None

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Waste is placed directly into SAA upon generation.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.360		
2004	0.700		
2005	0.700		
2006	0.360		
2007	0.200		
Total	2.320		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain:

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted:

If yes, provide document number or other identification:

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

See section 3.2 below.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Batteries that can be radiologically released are recycled. Batteries that are radiologically contaminated will be disposed of as mixed waste.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program which looks for further opportunities to reduce waste production or produce waste in a less hazardous form.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name: T Plant Complex Waste Stream: Pb & Cd Batteries
Treatability Group Name: MLLW-09 - Lead-Acid and Cadmium Batteries
- 1.2 Applicable profile number(s) for this waste stream:
830.
- 1.3 Waste stream source information
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):
Lead acid batteries, etc.
- 1.3.2 History of how and where the waste was/is generated:
Generated at T Plant during routine maintenance and treatment activities and from other onsite and offsite generators.
- 1.3.3 Source of the regulated constituents:
See 1.3.1 and 1.3.2.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)
Process knowledge.
- 1.3.5 Additional notes:
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): T Plant Complex has a combination of covered and uncovered storage areas to support various waste management operations/activities. Depending upon the type of waste being managed the waste can be stored in covered or uncovered storage locations. As an example: If the waste is bulk liquid, this waste might be stored in a storage building equipped with HVAC to prevent freezing. | | |

2.1.1 How was the waste managed prior to storage?
Generated as part of routine maintenance and treatment activities and from other onsite and offsite generators.

2.1.2 Timeframe when waste was placed to storage?
1995 to present.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
T Plant Complex	2

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.416

Date of inventory values: 12/31/2002

Comments on waste inventory:

Inventory will fluctuate as T Plant Complex generates waste or performs treatment/verification of onsite/offsite generated waste.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list): N/A
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.010		
2004	0.010		
2005	0.010		
2006	0.010		
2007	0.010		
Total	0.050		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
01-A&E-012	11/28/2000

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☒ Assessment has been scheduled. Scheduled date: 3rd quarter CY2005.

☐ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

Projection volumes for this waste stream are expected to fluctuate as operations, maintenance, and repackaging of other generators waste and canyon deck/cell cleanout continues. The generation rates will be updated as necessary.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

See Section 3.3.3 for discussion on waste minimization.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Waste minimization techniques are used in maintenance planning processes and during treatment activities to the extent practical.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

The T Plant Complex has submitted a P2/Wmin fiscal year 2003 goal to reduce, where possible, mixed waste generation. For FY 2003 to 2007, new goals will be evaluated and identified on a year-by-year basis. The T Plant Complex does not track waste reduction by treatability groups. Routine and non-routine generated waste is reported quarterly to the Waste Minimization/Pollution Prevention Group.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability Group Name:** MLLW-10 - Reactive Metals
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable)**
ENA, 44A, 44B, 820, 822, 82A. This waste consists of water-reactive metals and compounds, typically including sodium metal. May also consist of water-reactive cyanides.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 **Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 18.208
- 2.2 **Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	0.301		0.002
2004	0.301		0.002
2005	0.301		0.002
2006	0.301		0.002
2007	0.301		0.002
Total	1.505		0.010

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological Characteristics**
- 3.1.1 **Mixed waste type:** ☐ High-level ☐ Transuranic ☒ Low-level
- 3.1.2 **Handling (as package contents would need to be handled during treatment):**
☒ Contact-handled ☐ Remote-handled
- 3.1.3 **Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**
Since the waste is a general category based on dangerous waste physical characteristics, the radiological characteristics are expected to vary greatly. There is a high confidence that the waste is CH-MLLW.
- 3.2 **Physical Form**
- 3.2.1 **Physical form of the waste:**
☒ Solid ☐ Liquid ☐ Semi-solid ☐ Debris
☐ Other (Describe in comments.)
- 3.2.2 **Comments on physical form:**
A typical container consists of waste contaminated with reactive components.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable	Low TOC	***	***	DEACT and meet 268.48 standards
D002	Corrosive	Corrosive Charac.	***	***	DEACT and meet 268.48 standards
D003	Reactive	Other Reactives	N/A	Process Knowledge	DEACT and meet 268.48 standards
D003	Reactive	Reactive Cyanides	N/A	Process Knowledge	590/30 mg/kg
D003	Reactive	Water Reactive	N/A	Process Knowledge	DEACT and meet 268.48 standards
D005	TC-Barium	N/A	***	***	21 mg/l TCLP & meet 40 CFR 268.48
D007	TC-Chromium	N/A	***	***	0.60 mg/l TCLP & meet 40 CFR 268.48
WSC2	Solid Corrosive	N/A	***	***	Remove Solid Acid Charac.
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☐ Medium ☒ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Confidence is high that the waste package contains reactive waste contamination.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

No treatment plans for this waste stream have been completed.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes ☐ No ☐ Unknown

If yes, describe: N/A based on 4.2.

- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

None.

- 4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Treated waste will be disposed of in mixed waste trenches located on the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 222-S Laboratory Complex Waste Stream: Reactive Metals and Metal Compounds

Treatability Group Name: MLLW-10 - Reactive Metals

1.2 Applicable profile number(s) for this waste stream:

None.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Solid waste from unused or expired standards and reagents used in laboratory operations (chemical used in an analytical procedure performed in the hood of the lab or hot cell analytical procedures).

1.3.2 History of how and where the waste was/is generated:

222-S generates waste during laboratory activities (e.g., analytical procedures and hot cell operations).

1.3.3 Source of the regulated constituents:

222-S Laboratory use standards and reagents to perform analytical operations.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Material safety data sheets are used primarily to designate standard and reagents.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Waste was managed per the Hanford Facility Dangerous Waste Permit Application, 222-S Laboratory Complex (DOE/ RL-91-27 Revision 1).

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

This data is from SWITS specific to 222-S Laboratory.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.300		
2004	0.300		
2005	0.300		
2006	0.300		
2007	0.300		
Total	1.500		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-01-018	12/03/2001

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: 9/2000

If yes, provide document number or other identification:

Operating and analytical procedures at 222S Laboratory.

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

222-S personnel minimize waste through proper planning during AJHA and pre-jobs and optimizing use of lab ware. 222-S seek innovative technology that will allow waste minimization.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

7.300 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

DOE/RL-2000-79 - "Pollution Prevention Accomplishments" document reported waste reductions for CY 2000. The waste reduction volume reported in Section 3.3.1 is a total waste minimization volume for similar waste streams across the 222-S Laboratory; this waste stream may be a portion of what was reported. 222-S has no waste minimization goals for this waste stream; therefore, no projected future waste volume reduction are reported in Section 3.3.2. However, the analytical process generating this stream is continuously evaluated for waste minimization opportunities.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 324 Waste Stream: Reactive Metals
Treatability Group Name: MLLW-10 - Reactive Metals

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Used or discarded thermal expansion device, dosimeter set, and tensile sheet specimen.

1.3.2 History of how and where the waste was/is generated:

Used or discarded materials.

1.3.3 Source of the regulated constituents:

Elemental Lithium and Sodium

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Identified during an LDR Assessment of the 324 building.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
	-

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

In Shielded Material Facility (SMF). Matrix will be managed as newly identified waste during SMF cleanout.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

2.5 Planned storage areas for this waste:

☐ Current Location ☐ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		0.002
2004	0.000		0.002
2005	0.000		0.002
2006	0.000		0.002
2007	0.000		0.002
Total	0.000		0.010

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

☒ Assessment has been scheduled. Scheduled date: 4th quarter CY2002.

☒ Other. Explain: As of December 31, 2002, the assessment field work has been completed, but the assessment report is still being prepared.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-094-00	09/30/2018

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Waste is storing in a totally enclosed facility

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		0.000
2004	0.000		0.000
2005	0.000		0.000
2006	0.000		0.000
2007	0.000		0.002
Total	0.000		0.002

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** CWC **Waste Stream:** Alkali metals
Treatability Group Name: MLLW-10 - Reactive Metals
- 1.2 **Applicable profile number(s) for this waste stream:**
N/A
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Reactive Metal Waste - Reactive metal (e.g. sodium, lithium, calcium), metal hydrides, borohydrides and related compounds packaged in a form that is sufficiently stable for extended storage.
- 1.3.2 **History of how and where the waste was/is generated:**
The waste was generated at various onsite locations.
- 1.3.3 **Source of the regulated constituents:**
See 1.3.1 and 1.3.2.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge.
- 1.3.5 **Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 **Current storage method**
- ☐ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):
- 2.1.1 **How was the waste managed prior to storage?**
Accumulated and packaged by waste generators prior to storage at CWC.
- 2.1.2 **Timeframe when waste was placed to storage?**
Waste storage at CWC began in 1988 and continues.
- 2.2 **Storage inventory locations:**

Building/Room Number	Number of Containers/Tanks
CWC	56

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 18.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory based on data for containers residing at the CWC as reported in the SWITS for WSRds 44A, 44B, 820, 822, 82A, and ENA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name:** FFTF **Waste Stream:** Reactive Metals
Treatability Group Name: MLLW-10 - Reactive Metals
- 1.2 Applicable profile number(s) for this waste stream:**
H599.
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Small pieces of metallic sodium collected during refueling and maintenance activities. The size of each piece usually range from tablespoon size to 1/4 cup. The volume generated depends on the amount of refueling and maintenance activities that are taking place.
- 1.3.2 History of how and where the waste was/is generated:**
Generated during refueling/maintenance activities when working with system components.
- 1.3.3 Source of the regulated constituents:**
Small pieces of sodium from the system may be attached to components during maintenance and refueling activities. The sodium needs to be removed before Maintenance/Refueling activities can continue. Refueling activities also include removing non-fuel components from storage in sodium.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge.
- 1.3.5 Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | N/A | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

The waste being reported is in an SAA.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

- ☐ Current Location ☐ CWC ☐ DST
☐ Other Area(s) (list): N/A
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.001		
2004	0.001		
2005	0.001		
2006	0.001		
2007	0.001		
Total	0.005		

2.7 DOE Storage Compliance Assessment information:

- ☐ Assessment has been completed.

Document Number	Date

- ☐ Assessment has been scheduled. Scheduled date:

- ☒ Other. Explain: N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

The final disposition of the 260,000 gallons of FFTF sodium has not been determined but the present plans are to use this sodium as a product and not as a waste.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

February 2007.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

The waste stream is of such insignificant volume that any further minimization is not required. The refueling equipment is designed to minimize the waste generated. In addition, sodium is collected in drip pots, then heated and returned to the system.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 kg

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 **Unit/Plant name:** T Plant Complex **Waste Stream:** Alkali metals
Treatability Group Name: MLLW-10 - Reactive Metals

1.2 **Applicable profile number(s) for this waste stream:**
820

1.3 **Waste stream source information**

1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**

Old mercury spill kits.

1.3.2 **History of how and where the waste was/is generated:**

Waste Generated at the T Plant Complex.

1.3.3 **Source of the regulated constituents:**

See 1.3.1 and 1.3.2

1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**

Process knowledge.

1.3.5 **Additional notes:**

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 **Current storage method**

- ☐ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 **How was the waste managed prior to storage?**

Generated at the T Plant Complex.

2.1.2 **Timeframe when waste was placed to storage?**

2000.

2.2 **Storage inventory locations:**

Building/Room Number	Number of Containers/Tanks
T Plant Complex	1

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.208

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
01-A&E-012	11/28/2000

☒ Assessment has been scheduled. Scheduled date: 3rd quarter CY2005.

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

To the extent practical, all mixed waste is segregated and packaged separately from LLW. The volume of mixed waste is reduced by compaction, when possible. To minimize the generation of mixed waste, T Plant Complex personnel actively seek nondangerous alternatives. In addition, waste minimization goals are set annually and tracked quarterly.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

The T Plant Complex has submitted a P2/Wmin fiscal year 2003 goal to reduce, where possible, mixed waste generation. FY 2003 to 2007, new goals will be evaluated and identified on a year-by-year basis. T Plant Complex does not track waste reduction by treatability groups. Routine and non-routine generated waste is reported quarterly to the Wmin/P2 group.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability Group Name:** PUREX Plant
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)**
Concrete rubble contaminated with trace chromium as a corrosion product. No additional waste will be stored at this location, as the PUREX Plant is under long term S&M.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 1.000
- 2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological Characteristics**
- 3.1.1 Mixed waste type:** ☐ High-level ☒ Transuranic ☐ Low-level
- 3.1.2 Handling (as package contents would need to be handled during treatment):**
☐ Contact-handled ☒ Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**
The waste was generated during replacement of a vessel and renovation of the E-Cell floor. Concrete debris was placed in a metal box that is now stored in F-Cell. The chemical processing performed in E Cell was primarily treatment of dissolved fuel cladding waste. Based on the Pu content and the radiological characteristics of the waste (emits approximately 500 rad/hr), it is categorized as remote-handled TRU. The confidence level is high.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid
 ☐ Liquid
 ☐ Semi-solid
 ☐ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

None.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater
 ☒ Non-wastewater
 ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D007	Chromium	N/A	~1000 ppm	Analytical results	DEBRIS MACRO

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

3.3.4 Does this waste stream contain PCBs?

- ☐ Yes
 ☒ No
 ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- ☐ Yes
 ☐ No
 ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

- ☐ < 50 ppm
 ☐ ≥ 50 ppm
 ☐ Unknown

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☐ Medium ☒ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Based on laboratory analysis.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Until a final decision is made on the Canyon Disposition Initiative, no commitments will be made for waste disposal.

4.4 Treatment schedule information:

Will be established after final decision is made on the Canyon Disposition Initiative.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

4.6 Proposed new Tri-Party Agreement treatment milestones:

None.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes ☐ No ☒ Unknown

If yes, describe: N/A based on 4.2.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

Unknown.

LDR REPORT TREATABILITY GROUP DATA SHEET

4.9 Key Assumptions:

Decommissioning of the PUREX Plant is addressed under Chapter 8 of the Tri-Party Agreement. The PUREX Plant is under long term surveillance and maintenance in accordance with Section 8.0, Facility Decommissioning Process, of the Tri-Party Agreement.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

A decision on the Canyon Disposition Initiative will affect the final disposition of the PUREX Plant and its contents.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name: PUREX Plant Waste Stream: PUREX Containment Building
Treatability Group Name: PUREX Plant
- 1.2 Applicable profile number(s) for this waste stream:
N/A
- 1.3 Waste stream source information
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):
Concrete rubble from the E-Cell canyon floor was placed in a metal box during the floor renovation.
- 1.3.2 History of how and where the waste was/is generated:
Waste was generated from renovation of the E-Cell floor.
- 1.3.3 Source of the regulated constituents:
Process solutions spilled to the E-Cell canyon floor..
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)
Analytical data.
- 1.3.5 Additional notes:
Waste was generated in September, 1989.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☐ Container (pad) ☐ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☒ Other (explain): PUREX Containment Building.

2.1.1 How was the waste managed prior to storage?

It was placed into this storage configuration upon being generated.

2.1.2 Timeframe when waste was placed to storage?

Waste was generated in September 1989.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
202A/ F-Cell	1 cell

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 1.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

Waste is located in a single metal box on the F-Cell Canyon Floor.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☐ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

The waste was generated during replacement of a vessel and renovation of the E-Cell floor. Concrete debris was placed in a metal box that is now stored in F-Cell. The chemical processing performed in E Cell was primarily treatment of dissolved fuel cladding waste. Based on the Pu content and the radiological characteristics of the waste (emits approximately 500 rad/hr), it is categorized as remote-handled TRU. The confidence level is high. No additional waste will be stored at this location. PUREX is under long term surveillance and maintenance under Section 8 of the TPA.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

N/A - no longer generated.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

The facility is inactive. No additional waste will be generated.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

1.1 Treatability Group Name: PUREX Storage Tunnels

1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)

Varies from very large equipment vessels with lead counterweights to very fine mixed waste powder in canisters. Waste receipt into the TSD unit began in 1960. The TSD unit waste inventory list is contained in the Hanford Facility RCRA Permit, Attachment 28, Chapter 3.0, Waste Analysis Plan. Waste is expected to contain a combination of TRU and TRUM.

2.0 WASTE INVENTORY AND GENERATION

2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]

Total volume (cubic meters): 2,800.000

2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.0 WASTE STREAM CHARACTERIZATION

3.1 Radiological Characteristics

3.1.1 Mixed waste type: ☐ High-level ☒ Transuranic ☐ Low-level

3.1.2 Handling (as package contents would need to be handled during treatment):

☐ Contact-handled ☒ Remote-handled

3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):

Varies from medium (~1 rad/hr) to very high(>1000 rad/hr).

3.2 Physical Form

3.2.1 Physical form of the waste:

☒ Solid ☒ Liquid ☐ Semi-solid ☐ Debris

☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

LDR REPORT TREATABILITY GROUP DATA SHEET

There are a number of items in the tunnels with different types of waste, but the large failed stainless steel and iron vessels and equipment constitute the bulk of the waste.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Oxidizer	Low TOC	**	Process knowledge	Deact 40 CFR 268.48 ***
D005	Barium	Barium	100-1000 ppm **	Analytical/ Process knowledge	21 mg/l TCLP & Deact 40 CFR 268.48 ***
D006	Cadmium	Cadmium	**	Analytical/ Process knowledge	0.11 mg/l TCLP & Deact 40 CFR 268.48 ***
D007	Chromium	Chromium	5-1000 ppm **	Analytical/ process knowledge	0.60 mg/l TCLP & Deact 40 CFR 268.48 ***
D008	lead	Rad lead solids	**	Process knowledge	MACRO
D009	Mercury	High Hg Inorganic	**	Process knowledge	RMERC
D010	Selenium	Selenium	**	Process knowledge	5.7 mg/l TCLP & Deact 40 CFR 268.48 ***
D011	Silver	Silver	5-1000 ppm **	Process knowledge	0.14 mg/l TCLP & Deact 40 CFR 268.48 ***
WT02	Toxic (mineral oil)		**	Process knowledge	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** UHCs must be determined for the waste in Tunnels 1 and 2 unless managed as hazardous debris. DOE expects most of the waste to be managed as hazardous debris.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Confidence varies depending on waste item. Contaminants vary with different containers/equipment. (Not all of the waste would have all waste codes). D001 nitrate residue is from nitric acid. The Cd, Pb and Hg are largely present as pure materials and may be separated and recycled when the waste is dispositioned.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☐ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

N/A

4.4 Treatment schedule information:

Waste will be dispositioned on a schedule consistent with the PUREX Plant treatability group.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

4.6 Proposed new Tri-Party Agreement treatment milestones:

None.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes

☐ No

☒ Unknown

If yes, describe: N/A based on 4.2.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

None.

4.9 Key Assumptions:

Closure of the PUREX Storage Tunnels will be coordinated with disposition of the PUREX Plant.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

Waste from the PUREX Storage Tunnels will be dispositioned in the same manner and location as the PUREX Plant. A decision on the Canyon Disposition Initiative will affect the final disposition of the PUREX Plant and its contents, including the contents of the PUREX Storage Tunnels.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name:** PUREX Storage Tunnels **Waste Stream:** Tunnels 1 and 2
Treatability Group Name: PUREX Storage Tunnels
- 1.2 Applicable profile number(s) for this waste stream:**
N/A
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Railcars with failed pieces of processing equipment are in the tunnels. Material varies from very large equipment vessels with lead counterweights to very fine mixed waste powder in canisters from B-Cell in the 324 Building.
- 1.3.2 History of how and where the waste was/is generated:**
The bulk of the waste is failed equipment from the PUREX Plant. The equipment was removed from its operating position in the canyon using the bridge crane and set onto a railcar prepared for the "burial". The railcar was then pushed into the tunnel. However, waste from other Hanford Facility locations, including 324 research and development laboratory, has been placed in the tunnels because it is so highly radioactive.
- 1.3.3 Source of the regulated constituents:**
The bulk of the waste is failed equipment from the PUREX Plant. However, waste from other Hanford Facility locations, including 324 research and development laboratory, has been placed in the tunnels.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Analytical data and process knowledge.
- 1.3.5 Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 Current storage method**
- | | | |
|--|---|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input checked="" type="checkbox"/> Other (explain): | On rail cars in underground tunnel; permit issued as a final status miscellaneous TSD unit. | |
- 2.1.1 How was the waste managed prior to storage?**
The equipment pieces in the PUREX Plant canyon failed and were moved to the tunnel. The waste from the 324 Building was removed from B-Cell and sent to waste storage.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.1.2 Timeframe when waste was placed to storage?

June 1960 to June 1996.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
Purex tunnel #1	8 rail cars
Purex tunnel #2	28 rail cars

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 2,800.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

Volume is estimated.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☐ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment Information:

☒ Assessment has been completed.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Document Number	Date
A&E-SEC-01-016, Oct 2001 (DOE assessment)	10/30/2001

- ☐ Assessment has been scheduled. Scheduled date:
- ☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

- ☐ Yes ☒ No ☐ Unknown at this time

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

Waste in the tunnels mainly came from the PUREX Plant canyon. The waste from the tunnels will be handled at the same time and in the same manner as the mixed waste in the PUREX Plant treatability group and will be handled during final disposition.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

N/A

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

No waste is expected to be generated. However, the PUREX StorageTunnels do remain active as a final status TSD unit and might receive additional waste in the future.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability Group Name: Purgewater
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)
Groundwater contaminated with uranium, technetium, carbon tetrachloride, and nitrates.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]
Total volume (cubic meters): 3,700.000
- 2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].

Year	m ³	and/or	kg
2003	2,500.000		
2004	2,500.000		
2005	2,500.000		
2006	2,500.000		
2007	2,500.000		
Total	12,500.000		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological Characteristics
- 3.1.1 Mixed waste type: ☐ High-level ☐ Transuranic ☒ Low-level
- 3.1.2 Handling (as package contents would need to be handled during treatment):
☒ Contact-handled ☐ Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):
None.
- 3.2 Physical Form
- 3.2.1 Physical form of the waste:
☐ Solid ☒ Liquid ☐ Semi-solid ☐ Debris
☐ Other (Describe in comments.)
- 3.2.2 Comments on physical form:
Waste stream is generated from groundwater sampling, well maintenance, well drilling, and pump and treat operations.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

☒ Wastewater ☐ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D007	Chromium	None	>5.0 mg/l	analytical data	2.77 mg/l and meet 268.48.
D019	Carbon Tetrachloride	N/A	**	analytical data	0.057 mg/l and meet 268.48.
F001	Carbon Tetrachloride	Spent Solvent	**	analytical data	0.057 mg/l
F002	Methylene Chloride	Spent Solvent	**	analytical data	0.089 mg/l
F003	Methanol	Spent Solvent	**	analytical data	5.6 mg/l
F004	o-Cresol, p-cresol, m-cresol	Spent Solvent	**	analytical data	0.11 mg/l
F005	Methyl Ethyl Ketone	Spent Solvent	**	analytical data	0.28 mg/l

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

Waste codes are assigned based on designations made in the CERCLA Records of Decision for the 200-ZP-1 and the 100-NR-2 Operable Units.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☐ Medium ☒ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

Analytical data is available for all groundwater activities being performed on the Hanford Site. Groundwater from all across the site is managed at the PSTF.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☒ Yes ☐ No

If yes, provide details: Treated via solar evaporation.

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

☐ No treatment required (skip to Section 5.0)

☒ Treating or plan to treat on site

☐ Treating or plan to treat off site

☐ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Treated via solar evaporation at the PSTF.

4.4 Treatment schedule information:

Treatment is ongoing.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
N/A	N/A

4.6 Proposed new Tri-Party Agreement treatment milestones:

N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes

☒ No

☐ Unknown

If yes, describe: N/A

- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

N/A

- 4.9 Key Assumptions:

The Hanford Site purgewater management plan is being re-negotiated, as a result of the negotiations, information may be updated.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

As a result of solar evaporation, only residues and sludges remain in the modular tanks. When the PSTF is taken out of service, the residues/sludges remaining in the modular tanks will be removed, treated as necessary to meet the ERDF Waste Acceptance Criteria and disposed of at ERDF.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name:** 600 Area PSTF **Waste Stream:** Purgewater Modu-Tanks
Treatability Group Name: Purgewater
- 1.2 Applicable profile number(s) for this waste stream:**
Waste Profile Sheet, ERC CCN # 084622.
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Purgewater.
- 1.3.2 History of how and where the waste was/is generated:**
Purgewater generated from pump and treat operations, well drilling, groundwater sampling activities, and well maintenance.
- 1.3.3 Source of the regulated constituents:**
Groundwater is contaminated with organics, metals, and radionuclides from process water discharged to the soil during past Hanford Site operations.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Analytical data and process knowledge.
- 1.3.5 Additional notes:**
Purgewater accounted for in this stream is collected from all across the Hanford Site.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input checked="" type="checkbox"/> Other (explain): Above ground modular containment units open to the atmosphere, permitted under interim status as S99 (other storage) | | |

2.1.1 How was the waste managed prior to storage?

Waste is generated, placed into containers or directly into tanker trucks, and transferred to the PSTF.

2.1.2 Timeframe when waste was placed to storage?

The facility is a solar evaporation unit that has been in service since 1991.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
PSTF Unit #1	1

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 3,700.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

Waste is directly discharged to the purgewater storage and treatment facility.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☐ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	2,500.000		
2004	2,500.000		
2005	2,500.000		
2006	2,500.000		
2007	2,500.000		
Total	12,500.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
ASS-00-A&E-068 via Ltr #01-A&E-068	11/01/2000

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

To meet concentration based treatment standards applicable for the residues, sampling will be required after treatment if the residues are MLLW. No commitment is necessary for the characterization needs on this MLLW.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

Project is evaluating sending purgewater to ETF for treatment and closing the PSTF.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:
2003.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Hanford contractors are currently evaluating zero purge and near zero purge sampling techniques to minimize the amount of waste that is generated during well sampling activities. There are several regulatory and technical issues that must be addressed to assess the applicability.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

No projections at this time.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

1.1 Treatability Group Name:

SST Waste

1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)

Basic aqueous slurry with layers of saltcake and/or sludge. Sludge is defined as solids (i.e., hydrous metal oxides) precipitated from the neutralization of acid wastes. Saltcake is defined as the various salts formed from the evaporation of water.

2.0 WASTE INVENTORY AND GENERATION

2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]

Total volume (cubic meters): 119,300.000

2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.0 WASTE STREAM CHARACTERIZATION

3.1 Radiological Characteristics

3.1.1 Mixed waste type: ☒ High-level ☐ Transuranic ☐ Low-level

3.1.2 Handling (as package contents would need to be handled during treatment):

☐ Contact-handled ☒ Remote-handled

3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):

SST System wastes contain the following major radionuclides: 3H, 14C, 90SR, 90Y, 129I, 137Cs, 137mBa, 151Sm, 238Pu, 240Pu, 241Pu, 241Am, and 242Am.

3.2 Physical Form

3.2.1 Physical form of the waste:

☐ Solid ☐ Liquid ☒ Semi-solid ☐ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

LDR REPORT TREATABILITY GROUP DATA SHEET

The major constituents are water and sodium salts of aluminate, nitrate, nitrite, phosphate, hydroxide, carbonate, and sulfate. Some calcium and potassium salts are also present. Chemically complexed waste in the DSTs contain sodium salts of chelating agents ethylenediamine-tetraacetic acid and n-hydroxyethylenediamine-tetraacetic acid. There may also be detectable concentrations of halogenated and nonhalogenated organic compounds and heavy metals such as lead, chromium and cadmium.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitability	Low TOC ignitable Char. Liquid	(4)	(4)	DEACT (2); RORGS; COMBST
D002	Corrosivity	(1)	(4)	(4)	HLVIT
D003	Reactivity	Reactive Cyanides	(4)	(4)	590/30 mg/kg
D004	Arsenic	(1)	(4)	(4)	HLVIT
D005	Barium	(1)	(4)	(4)	HLVIT
D006	Cadmium	(1)	(4)	(4)	HLVIT
D007	Chromium	(1)	(4)	(4)	HLVIT
D008	Lead	(1)	(4)	(4)	HLVIT
D009	Mercury	(1)	(4)	(4)	HLVIT
D010	Selenium	(1)	(4)	(4)	HLVIT
D011	Silver	(1)	(4)	(4)	HLVIT
D018	Benzene	N/A	(4)	(4)	10 mg/kg (2)
D019	Carbon Tetrachloride	N/A	(4)	(4)	6.0 mg/kg (2)
D022	Chloroform	N/A	(4)	(4)	6.0 mg/kg (2)
D028	1,2-Dichloroethane	N/A	(4)	(4)	6.0 mg/kg (2)
D029	1,1-Dichloroethylene	N/A	(4)	(4)	6.0 mg/kg (2)
D030	2,4-Dinitrotoluene	N/A	(4)	(4)	140 mg/kg (2)
D033	Hexachlorobutadiene	N/A	(4)	(4)	5.6 mg/kg (2)
D034	Hexachloroethane	N/A	(4)	(4)	30 mg/kg (2)
D035	Methyl Ethyl Ketone	N/A	(4)	(4)	36 mg/kg (2)
D036	Nitrobenzene	N/A	(4)	(4)	14 mg/kg (2)
D038	Pyridine	N/A	(4)	(4)	16 mg/kg (2)
D039	Tetrachloroethylene	N/A	(4)	(4)	6.0 mg/kg (2)
D040	Trichloroethylene	N/A	(4)	(4)	6.0 mg/kg (2)
D041	2,4,5-Trichlorophenol	N/A	(4)	(4)	7.4 mg/kg (2)
D043	Vinyl Chloride	N/A	(4)	(4)	6.0 mg/kg (2)
F001	1,1,1-Trichloroethane	Spent Solvent	(4)	(4)	6.0 mg/kg
F002	Methylene Chloride	Spent Solvent	(4)	(4)	30 mg/kg
F003	Acetone	Spent Solvent	(4)	(4)	160 mg/kg
F003	Methyl Isobutyl Ketone	Spent Solvent	(4)	(4)	33 mg/kg
F004	Cresols	Spent Solvent	(4)	(4)	5.6 mg/kg (o, m, &p); 11.2 mg/kg (mixed)
F005	Methyl Ethyl Ketone	Spent Solvent	(4)	(4)	36 mg/kg

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
WP01	Persistent wastes, Extremely hazardous wastes	N/A	(4)	(4)	NONE (3)
WP02	Persistent Dangerous wastes	N/A	(4)	(4)	N/A
WT01	Toxic Dangerous Wastes, Extremely Hazardous Wastes	N/A	(4)	(4)	NONE (3)
WTO2	Toxic Dangerous Wastes, Dangerous Wastes	N/A	(4)	(4)	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

- 1) Radioactive high-level wastes generated during the reprocessing of fuel rods.
- 2) and meet 40 CFR 268.48.
- 3) Mixed extremely hazardous wastes can be land-disposed in Washington State in DOE facilities in accordance with RCW 70.105.050(2).
- 4) See Section 3.3.6.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☐ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☒ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

3.3.4 Does this waste stream contain PCBs?

- ☒ Yes ☐ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- ☐ Yes ☒ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

- ☒ < 50 ppm ☐ ≥ 50 ppm ☒ Unknown

3.3.5 What is the confidence level for the regulated constituents?

- ☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

LDR REPORT TREATABILITY GROUP DATA SHEET

The wastes in the SSTs continues to be sampled, analyzed, and characterized. Waste was sent to the SST System prior to the enactment of LDR requirements, so pertinent LDR requirements were not documented. When SST System waste is transferred to the DST System, known LDR requirements are documented on profile sheets based on the Part A, Form 3, Permit Application for the SST System. Small amounts of PCBs have been detected in some SSTs. Per the guidance in the Toxic Substance Control Act Polychlorinated Biphenyls Hanford Site Users Guide (DOE/RL-2001-50, Rev. 0), the SSTs are not considered to be subject to TSCA at this time.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☒ Treating or plan to treat on site
☐ Treating or plan to treat off site
☐ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Wastes in the SST System will undergo retrieval, treatment, and will be sent to disposal through the DST System. This may include pretreatment, and vitrification, which will destroy or extract organic and cyanide constituents to below treatment standards, neutralize or deactivate dangerous waste, and immobilize toxic metals.

4.4 Treatment schedule information:

The SST Waste will be transferred to the DST System and eventually be treated and disposed of as DST Waste, per TPA milestones.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
M-044-00	09/30/1999
M-045-00	09/30/2024

4.6 Proposed new Tri-Party Agreement treatment milestones:

None.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☒ Yes ☐ No ☐ Unknown

If yes, describe: Waste minimization will be addressed during the retrieval process.

LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.**

None at this time.

- 4.9 Key Assumptions:**

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

In accordance with current plans, after transfer to the DST System and subsequent treatment as DST waste, the low-activity waste fraction will be disposed of onsite in a retrievable form. The vitrified HLW fraction will be stored onsite until the Geologic Repository Program is available to receive wastes for disposal.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name:** SST System **Waste Stream:** Past Practice Units
Treatability Group Name: SST Waste
- 1.2 Applicable profile number(s) for this waste stream:**
N/A
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
The SST system waste consists of double-shell slurry feed, non-complexed waste, concentrated phosphate waste, complexant concentrate waste, and dilute complexed waste. This waste is mostly sludge and saltcake waste, with some liquid waste layered over the solids. The IMUST's contain mixed wastes from operational processes.
- 1.3.2 History of how and where the waste was/is generated:**
This waste was generated as a byproduct of processing spent nuclear fuel, and from a variety of analytical, decladding, and separation processes.
- 1.3.3 Source of the regulated constituents:**
Hazardous constituents in the waste are from chemicals used during facility operations and maintenance; and laboratories, including analytical laboratories, as well as R&D work.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Process knowledge, and Tank Characterization Reports.
- 1.3.5 Additional notes:**
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input checked="" type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

- 2.1.1 How was the waste managed prior to storage?**
Wastes were managed at the specific contributing operating location.
- 2.1.2 Timeframe when waste was placed to storage?**
From 1945 to 1980.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
200-W-7	1 Tank
231-W-151	2 Tanks
240-S-302	1 Tank
241-A-302B	1 Tank
241-B-301B	1 Tank
241-B-302B	1 Tank
241-BX-302A	1 Tank
241-BX-302B	1 Tank
241-BX-302C	1 Tank
241-C-301C	1 Tank
241-ER-311A	1 Tank
241-S-302A and B	2 Tanks
241-SX-302	1 Tank
241-T-301	1 Tank
241-TX-302A and B	2 Tanks
241-TX-302BR	1 Tanks
241-TX-302X	1 Tank
241-TY-302A and B	2 Tanks
241-Z-8	1 Tank
242-T-135	1 Tank
242-TA-R1	1 Tank
244-BXjR (Vault)	4 Tanks
244-TXR (Vault)	3 Tanks
244-UR (Vault)	4 Tanks
241-A-431 (building)	0 Tanks
241-C-801 (building)	0 Tanks
241-SX-401 (building)	0 Tanks
241-SX-402 (building)	0 Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 300.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

The volume is rounded to the nearest 100 cubic meter. Tank volumes are determined by waste level measurements, which are then converted to volumes. Actual tank volume measurements at any given time may differ from the reported values due to factors such as instrumentation errors, uneven surfaces, and calculation rounding errors.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☐ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A-01-EMD-TF-09	12/31/2001

☒ Assessment has been scheduled. Scheduled date: See Table 3-4 for list of scheduled assessments.

☒ Other. Explain: Also assessment, EMD-TF-2001-04.

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-045-00	09/30/2024

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☐ No ☒ Unknown at this time

Milestone Number	Due Date
M-045-00B	09/30/2006
M-045-00C	04/30/2002

If yes or unknown, comment on characterization for treatment.

Waste will be characterized per the Tank Closure Documentation for each unit.

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☐ No ☒ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

It is unknown if further information will be needed for disposal. Awaiting information such as, variance and delisting petitions.

2.12 Other key assumptions related to storage, inventory, and generation information:

Waste will be sampled and characterized per applicable Data Quality Objectives, and/or the Regulatory Data Quality Objectives Supporting Tank Waste Remediation System Privatization Project, PNNL-12040 Rev 0, 12/1998.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

N/A

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: SST System Waste Stream: SST System

Treatability Group Name: SST Waste

1.2 Applicable profile number(s) for this waste stream:

N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The SST System waste consists of double-shell slurry feed, non-complexed waste, concentrated phosphate waste, complexant concentrate waste, and dilute complexed waste. This waste is mostly sludge and saltcake waste, with some liquid waste layered over the solids. The 244-AR Vault contains neutralized current acid waste, sludge, and contaminated water. The 244-CR Vault contains neutralized uranium recover waste, PUREX acidified sludge, and contaminated water. The IMUSTs contain mixed wastes from operational processes.

1.3.2 History of how and where the waste was/is generated:

This waste was generated as a byproduct of processing spent nuclear fuel, and from a variety of analytical, decladding, and separation processes.

1.3.3 Source of the regulated constituents:

Hazardous constituents in the waste are from chemicals used during facility operations and maintenance; and laboratories, including analytical laboratories, as well as R&D work.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge, and Tank Characterization Reports.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input checked="" type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Wastes were managed at the specific contributing operating facility.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.1.2 Timeframe when waste was placed to storage?

From 1945 to 1980.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
241-A	6 Tanks
241-AX	4 Tanks
241-B	16 Tanks
241-BX	12 Tanks
241-BY	12 Tanks
241-C	16 Tanks
241-S	12 Tanks
241-SX	15 Tanks
241-T	16 Tanks
241-TX	18 Tanks
241-TY	6 Tanks
241-U	12 Tanks
244-AR	4 Tanks
244-CR	4 Tanks
SST system	Diversion Boxes
SST system	Valve Pits
	Catch Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 119,000.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

The volume is rounded to the nearest 1,000 cubic meter. Tank volumes are determined by waste level measurements, which are then converted to volumes. Actual tank volume measurements at any given time may differ from the reported values due to factors such as instrumentation errors, uneven surfaces, and calculation rounding errors.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.5 Planned storage areas for this waste:

- ☒ Current Location
 ☐ CWC
 ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

- ☒ Assessment has been completed.

Document Number	Date
A-01-EMD-TF-09	12/31/2001

- ☒ Assessment has been scheduled. Scheduled date: See Table 3-4 for list of scheduled assessments
☒ Other. Explain: Also assessment, A-01-MD-TF-08, 7/2001

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-045-00	09/30/2024

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☒ Yes
 ☐ No

If yes, summarize releases and quantities and provide date:

See table of Hanford Site SST Releases in Chapter 5 of the LDR Storage Report.

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes
 ☒ No

If yes, explain: N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

Waste will be characterized per the Tank Closure Documentation for each tank.

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☐ No ☒ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

It is unknown if further information will be needed for disposal. Awaiting information such as, variance and delisting petitions.

2.12 Other key assumptions related to storage, inventory, and generation information:

Waste will be sampled and characterized per applicable Data Quality Objectives, and/or the Regulatory Data Quality Objectives Supporting Tank Waste Remediation System Privatization Project, PNNL-12040 Rev 0, 12/1998.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

N/A

- 3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):**

N/A

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability Group Name: TRUM - CH
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)

The waste came from various facilities on and off the Hanford Site. The waste contains plastic/polyurethane, rubber, iron-based metal, soil, paper, cardboard, lead, rags, cement, stainless steel, wood, styrofoam, glass, absorbent/kitty litter, filters, lead shielding, carbon steel, fiberglass, brick/firebrick, plastic liner, shielding, concrete, animal waste, paints, ceramics, sludges, asbestos, aluminum, diatomaceous earth, resins, copper metal, lead, water, floor sweepings, batteries, leather, liquid, teflon, cork, cotton, light bulbs, urethane and wax.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]
Total volume (cubic meters): 731.895
- 2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].

Year	m ³	and/or	kg
2003	461.191		0.000
2004	224.518		0.000
2005	242.232		0.000
2006	143.390		0.000
2007	114.700		0.000
Total	1,186.031		0.000

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological Characteristics
- 3.1.1 Mixed waste type: ☐ High-level ☒ Transuranic ☐ Low-level
- 3.1.2 Handling (as package contents would need to be handled during treatment):
☒ Contact-handled ☐ Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):
Each container of waste has more than 100 nCi/g of transuranic radionuclide activity.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid ☐ Liquid ☐ Semi-solid ☒ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

While the physical characteristics of any drum vary substantially, TRUM waste in drums typically contains organic debris or heterogeneous debris. TRUM waste in drums has a higher percentage of combustible waste than TRUM waste in boxes. A number of drums are mixed because they contain lead-lined gloves.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable Charac.	N/A	***	***	Remove characteristic (1)
D002	Corrosive Charac.	N/A	***	***	Remove characteristic (1)
D004	Arsenic	N/A	***	***	Exempt (61 FR 60704)
D005	Barium	N/A	***	***	Exempt (61 FR 60704)
D006	Cadmium	N/A	***	***	Exempt (61 FR 60704)
D007	Chromium	N/A	***	***	Exempt (61 FR 60704)
D008	Lead	N/A	***	***	Exempt (61 FR 60704)
D009	Mercury	N/A	***	***	Exempt (61 FR 60704)
D010	Selenium	N/A	***	***	Exempt (61 FR 60704)
D011	Silver	N/A	***	***	Exempt (61 FR 60704)
D014	Methoxychlor	N/A	***	***	Remove characteristic (1)
D018	Benzene	N/A	***	***	Exempt (61 FR 60704)
D019	Carbon Tetrachloride	N/A	***	***	Exempt (61 FR 60704)
D027	1,4-Dichlorobenzene	N/A	***	***	Exempt (61 FR 60704)
D028	1,2-Dichloroethane	N/A	***	***	Exempt (61 FR 60704)
D029	1,1-Dichlorethylene	N/A	***	***	Exempt (61 FR 60704)
D030	2,4-Dinitrotoluene	N/A	***	***	Exempt (61 FR 60704)
D031	Heptachlor	N/A	***	***	Remove characteristic (1)
D033	Hexachlorobutadiene	N/A	***	***	Remove characteristic (1)
D034	Hexachloroethane	N/A	***	***	Exempt (61 FR 60704)
D035	Methyl Ethyl Ketone	N/A	***	***	Exempt (61 FR 60704)
D036	Nitrobenzene	N/A	***	***	Exempt (61 FR 60704)
D040	Trichloroethylene	N/A	***	***	Exempt (61 FR 60704)

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D043	Vinyl chloride	N/A	***	***	Exempt (61 FR 60704)
F001	1,1,1-Trichloroethane	Spent Solvent	***	***	Exempt (61 FR 60704)
F001	Trichloroethylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F002	Trichloroethylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F003	Acetone	Spent Solvent	***	***	Exempt (61 FR 60704)
F003	Xylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F004	Cresol	Spent Solvent	***	***	Exempt (61 FR 60704)
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	Exempt (61 FR 60704)
WP01	Persistent, EHW	N/A	***	***	N/A
WP02	Persistent, DW	N/A	***	***	N/A
WSC2	Solid Corrosive	N/A	***	***	N/A
WT01	Toxic, EHW	N/A	***	***	N/A
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

(1) Characteristic waste codes not currently acceptable at WIPP.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☒ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☐ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

The number and concentration of contaminants in TRUM drums varies substantially. Over all drums, the predominant contaminants, listed in descending order of weight quantity, are lead, silver chloride, carbon tetrachloride, lithium, cadmium, and potassium/sodium hydroxide.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☒ Yes ☐ No

If yes, provide details:

The waste is processed at WRAP. Future unit operations will include solidification. The unit operations are performed as necessary for the waste to meet the WIPP waste acceptance criteria.

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

☐ No treatment required (skip to Section 5.0)

☒ Treating or plan to treat on site

☐ Treating or plan to treat off site

☐ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

The waste will continue to be processed at WRAP, as described in Sec 4.1 WRAP has a design capacity of 4,725 drums (983 cu m) per year on a single shift.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

LDR REPORT TREATABILITY GROUP DATA SHEET

Milestone Number	Due Date
M-091-01	

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☒ Yes ☐ No ☐ Unknown

If yes, describe: Best management practices.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

TRUM disposed of at WIPP is exempt from the LDR treatment standards.

4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

TRUM is disposed of at WIPP.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 200 Area Investigation Waste Stream: 200 Area Investigation
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:

N/A. Waste has not been generated.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Soil and miscellaneous solid waste generated during planned site investigations in the 200 Area of the Hanford Site.

1.3.2 History of how and where the waste was/is generated:

Waste will be generated in the 200 East and West Areas of the Hanford Site during remedial investigation activities.

1.3.3 Source of the regulated constituents:

Hazardous constituents were discharged to the soil via ponds, ditches, cribs, and trenches during past Hanford operations.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

1.3.5 Additional notes:

None,

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

No waste has been generated to date.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (Includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.416		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.416		

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

Waste stream will be characterized as it is generated.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

The forecast waste volumes are subject to change upon approval of the Operable Unit Work Plans. This waste stream only addresses the projected CH-TRUM.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Prior to initiation of field work.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Waste segregation will be used to minimize TRUM contaminated waste generated during investigation activities.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: 233-S Waste Stream: 233-S CH
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:
To be developed.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Decontamination and decommissioning (D&D) waste.

1.3.2 History of how and where the waste was/is generated:

Waste generated as a result of facility D&D.

1.3.3 Source of the regulated constituents:

Hazardous constituents were introduced as part of plant operations.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge and analytical data.

1.3.5 Additional notes:

This waste stream only accounts for the TRUM waste that will be shipped to CWC for storage.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Waste was generated and placed into temporary storage at this location.

2.1.2 Timeframe when waste was placed to storage?

Calendar Years 2000-2002.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
Waste tents	10 drums
Waste tents	2 standard waste boxes

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 6.680

Date of inventory values: 12/31/2002

Comments on waste inventory:

TRUM waste with heavy metals..

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	22.560		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	22.560		

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: Not scheduled at this time.

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

Characterization is ongoing and will be completed to transfer the TRUM to CWC. Performed under an Action Memorandum.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

This phase of the D&D project is scheduled to be completed by June 2003. DOE is completing D&D of this facility under an Action Memorandum from EPA.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Ongoing.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Waste is segregated to minimize the volume of TRUM waste generated.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name:** 325 HWTU **Waste Stream:** TRUM-CH
Treatability Group Name: TRUM - CH
- 1.2 Applicable profile number(s) for this waste stream:**
PNNL-220-0001-00, PNNL-230-0001-00, PNNL-240-0001-00, PNNL-250-0001-00
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Subject waste was generated from PNNL laboratory operations.
- 1.3.2 History of how and where the waste was/is generated:**
Waste is continually generated from routine laboratory operations at PNNL.
- 1.3.3 Source of the regulated constituents:**
Waste stream may consist of different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.):**
Wastes are characterized as specified in PNNL Waste Stream Profiles.
- 1.3.5 Additional notes:**
N/A

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

The waste was managed in 90 day or SAA prior to being transferred to storage.

2.1.2 Timeframe when waste was placed to storage?

The wastes inventoried below and currently stored at 325 HWTU were placed in storage between 4/29/97 and 12/18/02.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
325/520	4
325/528	115

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.489

Date of inventory values: 01/10/2003

Comments on waste inventory:

This represents the TRUM waste currently in these storage locations. TRUM wastes that fit under a separate profile may be stored in these locations in the future. Their profiles will need to be written at the time they are prepared for shipment.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.624		
2004	1.700		
2005	1.700		
2006	1.700		
2007	1.700		
Total	7.424		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Document Number	Date
A&E-DWR-02-004	05/31/2002

- ☐ Assessment has been scheduled. Scheduled date:
- ☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-20	06/30/1992

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

- ☐ Yes ☒ No ☐ Unknown at this time

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the 325 HWTU. However, further confirmatory NDA may be performed on TRUM packages that are consolidated at the 325 HWTU. The inventory information is for what is currently in storage in the specified 325 HWTU location(s). This includes current generation and/or M-091 wastes. The projections in section 2.6 of this data sheet include current generation and M-091 volumes.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Assessment date to be determined.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Laboratory staff routinely evaluate their processes to determine if less reagents or less hazardous reagents can be used in the process. The Radioactive Waste Operations Group routinely assesses the possibility of bulking and absorbing wastes to minimize the number of containers shipped to CWC.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.800 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.3.3 Bases and assumptions used in above estimates:

Any reductions indicated reflect only those achieved prior to shipment to CWC, not minimization efforts done in the laboratory prior to packaging. Thus the reduction is in shipping volume, not generation. The reductions projected are based upon historical reductions achieved through unit operations.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: CWC Waste Stream: CH TRUM
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The waste is generated from facility or equipment operation and maintenance waste, R&D laboratory waste, remediation D&D waste, and analytical laboratory waste. The waste matrix is primarily debris material such as plastic, rubber, metal, paper, cardboard, rags, cement, stainless steel, wood, Styrofoam, glass, ceramics, asbestos, and batteries. Other components of the waste include: soil, absorbent/kitty litter, filters, animal waste, paints, sludges, sand, diatomaceous earth, resins, and floor sweepings.

1.3.2 History of how and where the waste was/is generated:

The waste was generated from the PFP, PUREX Plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, and the Fuels Development Laboratory.

1.3.3 Source of the regulated constituents:

Hazardous constituents used during onsite and offsite radiochemical operations and D&D.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Accumulated and packaged by waste generators prior to storage.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.1.2 Timeframe when waste was placed to storage?

Waste storage in CWC began in 1988 and continues.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	1,849

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 392.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory based on data for containers residing at the CWC as reported in the SWITS.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	2.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	2.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: LLBG Waste Stream: TRUM Retrieval
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

This waste is generated from retrieval activities in the Low-Level Burial Grounds. Waste is expected to be similar to waste already in inventory in the CWC, i.e., facility or equipment operation and maintenance waste, R&D laboratory waste, remediation D&D waste, analytical laboratory waste. The waste matrix is primarily debris material such as plastic, rubber, metal, paper, cardboard, rags, cement, stainless steel, wood, Styrofoam, glass, ceramics, asbestos, and batteries. Other components of the waste include: soil, absorbent/kitty litter, filters, animal waste, paints, sludges, sand, diatomaceous earth, resins, floor sweepings.

1.3.2 History of how and where the waste was/is generated:

The waste was generated from the PFP, PUREX Plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, research laboratories, and the Fuels Development Laboratory. The waste was generated and retrievably buried between 1970 and 1987.

1.3.3 Source of the regulated constituents:

Hazardous constituents used during onsite and offsite radiochemical operations and D&D.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|--|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input checked="" type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
N/A	N/A

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Projected TRUM volumes based on waste inventory disposed of (buried) between 1970-1987 and assumptions regarding the fraction of TRUM generated from retrieved waste. 2007 estimates are based on 2006 numbers due to the life of FH's contract.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

- ☐ Current Location
 ☒ CWC
 ☐ DST
- ☐ Other Area(s) (list):
- ☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	150.000		
2005	195.000		
2006	105.000		
2007	105.000		
Total	555.000		

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.7 DOE Storage Compliance Assessment information:

☐ Assessment has been completed.

Document Number	Date

☐ Assessment has been scheduled. Scheduled date:

☒ Other. Explain: N/A

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
M-091-07	09/30/2004

If yes or unknown, comment on characterization for storage.

Waste will be assayed as it is retrieved to verify that it is TRU and will subsequently designate as TRUM. Waste that is sent to WIPP will need to be characterized to ensure that it meets the WIPP Waste Acceptance Criteria. No commitment is necessary for the characterization needs on this TRUM because it will occur as part of ongoing operations.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

Waste generation projections are based on current baseline retrieval rates and assumptions of what percentage of retrieved waste will designate as TRUM.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

No waste minimization assessment is planned because the process is not generating and packaging new waste, it is retrieving waste that already exists. TRUM waste will be minimized by assaying the suspect-TRU drums in the trench. Those that are low-level and were disposed on or before August 17, 1987 will remain disposed of in the LLBG. A small fraction of waste disposed after August 17, 1987 that are not TRU may need to be moved to the CWC for further characterization under the MLLW-04A treatability group.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m3

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name: PFP Waste Stream: Hanford Ash Residues
Treatability Group Name: TRUM - CH
- 1.2 Applicable profile number(s) for this waste stream:
PFPX-20L-0002-02.
- 1.3 Waste stream source information
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):
Ash residue from PFP's incinerator in 232-Z.
- 1.3.2 History of how and where the waste was/is generated:
Ash residue from PFP's incinerator, operated from 1961 to 1972. The incineration of contaminated combustible scrap material produced an ash residue that was retained for recovery of plutonium but was then later declared waste. See section 2.1.2.
- 1.3.3 Source of the regulated constituents:
Feed stock contained hazardous constituents.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)
Analytical data, process knowledge.
- 1.3.5 Additional notes:
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 Current storage method
- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |
- 2.1.1 How was the waste managed prior to storage?
Material in vaults or vault-like rooms.
- 2.1.2 Timeframe when waste was placed to storage?
October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology).

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
2736-Z	10

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.010

Date of inventory values: 12/31/2002

Comments on waste inventory:

10 containers remain in 2736-Z for confirmatory sampling.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list): To be sent to CWC.
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PPF Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-083-13	04/30/2004

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
M-083-13	04/30/2004

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter # M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is no longer generating this waste stream.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name: PFP Waste Stream: Lead Lined Containers
Treatability Group Name: TRUM - CH
- 1.2 Applicable profile number(s) for this waste stream:
WSRd 230-00. Profile not yet developed.
- 1.3 Waste stream source information
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):
Unusable Product Receiver (PR) containers.
- 1.3.2 History of how and where the waste was/is generated:
PFP has approximately 90 lead-lined PR containers that held plutonium-bearing solutions. The emptied lead-lined PR containers will be retained for reuse during the facility's D&D activities to collect flush solutions from the cleanout of pipes and tanks, as necessary, for further processing or solidification. At such time as the PR containers are no longer required for use during cleanout activities, they will be declared TRUM.
- 1.3.3 Source of the regulated constituents:
Lead in the container liners.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)
Analytical data, process knowledge.
- 1.3.5 Additional notes:
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
PPF	0

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values: 12/31/2002

Comments on waste inventory:

The waste is not yet generated and, therefore, is not in storage. The containers are being retained for reuse, as necessary, during cleanout activities to hold flush solutions.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	18.700		
2006	0.000		
2007	0.000		
Total	18.700		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PPF Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

NDA will be required to determine radiological content. No commitment is necessary for the characterization needs on this TRUM.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

Waste is not yet generated, therefore it is not in storage.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter # M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP will attempt to reuse these containers and will dispose of them only when no longer usable.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program which periodically identifies if there are further opportunities to reduce waste production or produce waste in a less hazardous form.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Legacy Holdup Waste
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:
Not yet developed.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Plutonium-bearing holdup consists of materials that have gradually accumulated as a result of facility operations and operational upsets.

1.3.2 History of how and where the waste was/is generated:

Plutonium in ductwork, process vacuum system piping, gloveboxes/hoods, and on the PRF canyon floor that is readily removable will be removed and evaluated for retention or disposal as waste.

1.3.3 Source of the regulated constituents:

Introduced during processing of material as part of process feed.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

Will be generated when the legacy holdup waste is removed.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

- ☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	7.290		0.000
2004	25.792		0.000
2005	26.832		0.000
2006	5.190		0.000
2007	0.000		0.000
Total	65.104		0.000

2.7 DOE Storage Compliance Assessment information:

- ☒ Assessment has been completed.

Document Number	Date
PFP Compl. Assess.; Ltr. #01-A&E-129	09/13/2001

- ☐ Assessment has been scheduled. Scheduled date:

- ☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
M-083-12-T01	12/31/2003
M-083-14	09/30/2006

If yes or unknown, comment on characterization for storage.

Characterization needs and schedule to be provided in the PFP Legacy Pu Holdup Removal Plan (MX-83-12-T01).

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

See 3.2 below.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP has a waste minimization program. A heirarchial approach to environmental management is applied to all types of pollution and waste generating activities. Pollution prevention and waste minimization, through source reduction, is the preferred option, followed by environmentally safe recycling. Treatment to reduce the quantity, toxicity, and/or mobility will be considered only when prevention or recycling is not possible or practical. Environmentally safe disposal is the last option. Segregation is applicable to all these activities.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		0.000
2004	0.000		0.000
2005	0.000		0.000
2006	0.000		0.000
2007	0.000		0.000
Total	0.000		0.000

3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program which periodically identifies if there are further opportunities to reduce waste production or produce waste in a less hazardous form.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Plutonium-Bearing Misc. Residues

Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:

WSRd 20L-01. Profile not yet developed.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Plutonium-bearing materials from plutonium recovery processes at PFP. Items that include compounds and combustibles, grinding medium, grinding wheels, grit, graphite and Pu foil.

1.3.2 History of how and where the waste was/is generated:

Plutonium bearing materials from plutonium recovery processes at PFP. Material was originally generated as product and then later declared waste by the DOE. See section 2.1.2.

1.3.3 Source of the regulated constituents:

Introduced during processing of material as part of process feed.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Product in vaults or vault-like rooms as material.

2.1.2 Timeframe when waste was placed to storage?

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology).

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
2736-Z	25

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 5.205

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☒ Other Area(s) (list): 234-5Z (Storage pursuant to the TPA).

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	5.205		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	5.205		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-083-13	04/30/2004

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
M-083-13	04/30/2004

If yes or unknown, comment on characterization for storage.

Characterization to be completed via DQO process.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter # M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Pu Miscellaneous Residues, Combustibles

Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:

WSRd 20L-01 (profile not yet developed).

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Combustibles from plutonium processing at 234-5Z. Further characterization of these combustibles is needed.

1.3.2 History of how and where the waste was/is generated:

Combustibles from plutonium processing at 234-5Z. Material was originally generated as product and then later declared waste by the DOE. See section 2.1.2.

1.3.3 Source of the regulated constituents:

Items used in plutonium processing became hazardous by contamination during processing.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Product in vaults or vault-like rooms as material.

2.1.2 Timeframe when waste was placed to storage?

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology).

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
2736-ZB, 234-5Z	12 containers

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.012

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	2.500		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	2.500		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-083-13	04/30/2004

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
M-083-13	04/30/2004

If yes or unknown, comment on characterization for storage.

Characterization to be completed through DQO process prior to repackaging.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter # M-2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Pu Oxides/Mixed Oxides Residues

Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:

PFPX-20L-0004

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Plutonium-bearing oxide and mixed oxide material that has previously undergone thermal stabilization and contains very little moisture and no organics.

1.3.2 History of how and where the waste was/is generated:

Plutonium-bearing oxide and mixed oxide material that has previously undergone thermal stabilization and contains very little moisture and no organics. There are three sub-categories:

1. PFP generated oxide residues - a low-grade plutonium oxide material recovered from the RMC and PRF processes. All material was thermally stabilized prior to storage in the vaults. 2. Rocky Flats oxide - plutonium oxide residues recovered from various pyrochemical operations. Materials have been thermally stabilized to remove moisture and reactive or gas generating components. 3. Mixed oxide and alloys - scrap materials resulting from 300 Area fuel fabrication research. The material varies widely in composition. Material was originally generated as product and then later declared waste by the DOE.

1.3.3 Source of the regulated constituents:

Feed stock contained hazardous constituents. See above.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

☐ Container (pad)

☒ Container (covered)

☐ Container (retrievably buried)

☐ Tank

☐ DST

☐ SST

☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

Product in vaults or vault-like rooms as material.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.1.2 Timeframe when waste was placed to storage?

2000-2002.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
2736-Z	1417
234-5Z	4

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 295.015

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☒ Other Area(s) (list): 234-5Z (Storage pursuant to the TPA).
2736-Z (Storage pursuant to the TPA).

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	285.438		
2004	10.410		
2005	0.000		
2006	0.000		
2007	0.000		
Total	295.848		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

- ☐ Assessment has been scheduled. Scheduled date:
☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-083-13	04/30/2004

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

- ☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
M-083-13	04/30/2004

If yes or unknown, comment on characterization for storage.

Characterization is being completed via the DQO process prior to repackaging.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number

Due Date

N/A

N/A

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted:

CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter# M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.3.3 Bases and assumptions used in above estimates:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Rocky Flats Ash Residues
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:
PFPX-20L-0001

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Ash residue from Rocky Flats incinerator.

1.3.2 History of how and where the waste was/is generated:

Incinerator ash from Rocky Flats was originally sent to Hanford for plutonium recovery, but was later declared waste. See section 2.1.2.

1.3.3 Source of the regulated constituents:

Feed stock contained hazardous constituents.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Product in vaults or vault-like rooms.

2.1.2 Timeframe when waste was placed to storage?

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology).

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
2736-Z	10

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.010

Date of inventory values: 12/31/2002

Comments on waste inventory:

10 containers will remain in 2736-Z for confirmatory sampling.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- ☐ Assessment has been scheduled. Scheduled date:
- ☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-083-13	04/30/2004

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter# M-2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is no longer generating this waste stream.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Sand, Slag, and Crucible Residues

Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:
PFPX-20L-0003

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Sand Slag and Crucible (SS&C) is a process residue. Slag contains calcium fluoride, calcium, iodine and unreacted plutonium fluoride. Sand and crucible pieces are composed of the broken pieces of the crucible, the adhering slag, magnesium oxide sand, and other remaining solids.

1.3.2 History of how and where the waste was/is generated:

SS&C is a process residue originally generated in the remote mechanical C line during production of plutonium metal buttons. SS&C was originally generated as product and then later declared waste by the DOE. See section 2.1.2.

1.3.3 Source of the regulated constituents:

Introduced during processing of material as part of process feed.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Product in vaults or vault-like rooms as material.

2.1.2 Timeframe when waste was placed to storage?

October 28, 1999 (per correspondence 00-OSS-273, dated April 3, 2000, S. H. Wisness, DOE to M. A. Wilson, Washington Department of Ecology).

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
234-5Z	9

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 1.874

Date of inventory values: 12/31/2002

Comments on waste inventory:

None.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	1.874		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	1.874		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PPF Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-083-13	04/30/2004

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter # M-2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is no longer generating this waste stream, only repackaging them into pipe overpack containers (POCs). The POCs will be loaded so as to minimize the number of POCs of waste to be disposed.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: TRUM Debris
Treatability Group Name: TRUM - CH

1.2 Applicable profile number(s) for this waste stream:

PFPX-230-0004, PFPX-230-0005, PFPX-230-0006, PFPX-230-0007, PFPX-230-0008, PFPX-230-0012

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Primarily debris materials such as plastic, wood, rubber, metal, glass, concrete, etc.

1.3.2 History of how and where the waste was/is generated:

Debris is generated from facility or equipment operations and maintenance waste and D&D activities.

1.3.3 Source of the regulated constituents:

Materials/debris contaminated with hazardous constituents from operations, construction, and D&D activities.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge

1.3.5 Additional notes:

None

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.000

Date of inventory values:

Comments on waste inventory:

When generated, the TRUM will be placed into a SAA or 90-day accumulation area.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

Yes

No

If yes, what is the total estimated storage capacity?

When is this capacity expected to be reached?

Bases and assumptions used:

None.

2.5 Planned storage areas for this waste:

- ☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	133.700		
2004	36.200		
2005	0.000		
2006	31.500		
2007	8.000		
Total	209.400		

2.7 DOE Storage Compliance Assessment information:

- ☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess.; Ltr. #01-A&E-129	09/13/2001

- ☐ Assessment has been scheduled. Scheduled date:
☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

Will be completed during activities to facilitate transfer of the container to CWC. No commitment is necessary for the characterization needs on this TRUM.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

See section 3.2 below.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. During D&D PFP's waste minimization program will seek to minimize waste production as much as possible.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** WRAP **Waste Stream:** TRUM-CH
Treatability Group Name: TRUM - CH
- 1.2 **Applicable profile number(s) for this waste stream:**
WSRs 20D, 20L, 200, 201, 203, 220, and 230.
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Waste is drummed CH TRUM that consists of plastics, paper/cardboard, filters, rubber, wood, cloth/rags, metal, soil/rocks, chemicals, and glass.
- 1.3.2 **History of how and where the waste was/is generated:**
The waste was generated from the PFP, PUREX Plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, research laboratories, and the Fuels Development Laboratory. The waste was generated and placed into storage from 1987-1999. In addition, some waste in this stream will be from future 200 Area D&D activities (has yet to be generated). This waste is in WRAP for certification to be sent to WIPP.
- 1.3.3 **Source of the regulated constituents:**
Radiochemical operations around the site using hazardous chemicals, and D&D of such operations as noted in Section 1.3.2 of this data sheet.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Analytical data, process knowledge.
- 1.3.5 **Additional notes:**
Waste at WRAP comes from various generators and generating processes around the Hanford Site due to WRAP's verification and repackaging mission. TRUM destined for WIPP is exempt from LDRs.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 **Current storage method**

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 **How was the waste managed prior to storage?**

Waste was generated and packaged at various locations around the Hanford Site.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.1.2 Timeframe when waste was placed to storage?

Waste was placed into storage between 1987 and present. Drums at WRAP are undergoing verification and repackaging to meet WIPP WAC.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
2336W	153

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 30.600

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory fluctuates on a daily basis to support WRAP's mission of waste verification and repackaging. Inventory based on Drum Management System (DMS) printout dated 01/06/03

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

Due to proximity to and interchange with CWC, there is no storage capacity issue at WRAP.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Document Number	Date
DE-AC06-96RL13200	09/26/2001

- ☐ Assessment has been scheduled. Scheduled date:
- ☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

- ☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

- ☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

- ☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

The waste at WRAP is processed through WRAP and transferred on to another TSD unit or Atomic Energy Act disposal location. A commitment is not necessary to complete this characterization because it is part of WRAP's ongoing activities.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

- ☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None currently scheduled -- see Section 3.2.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

This is waste generated at other locations. However, to the extent practical, all mixed waste is segregated and packaged separately from LLW or TRU wastes. To minimize the generation of mixed waste, generators actively seek nondangerous alternatives for the dangerous constituents in their processes. Minimization goals are set annually and tracked quarterly, and waste treatment is used to destroy the hazardous constituents, as allowable.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m3

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

Since subject waste has already been generated, no additional waste minimization activities are planned.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

1.1 Treatability Group Name: TRUM - Large Box

1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)

TRUM waste from various generating activities around the Hanford Site. The waste contains metals including steel shielding, plastic/polyurethane, wood, paper/cardboard, glass, filters, soil, miscellaneous/unknown/other, rags, lead and lead shielding, plexiglas, styrofoam, asbestos, rubber, glass, sorbents/kitty litter, cement and concrete.

2.0 WASTE INVENTORY AND GENERATION

2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]

Total volume (cubic meters): 72.000

2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.0 WASTE STREAM CHARACTERIZATION

3.1 Radiological Characteristics

3.1.1 Mixed waste type: ☐ High-level ☒ Transuranic ☐ Low-level

3.1.2 Handling (as package contents would need to be handled during treatment):

☒ Contact-handled ☐ Remote-handled

3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):

Each container of waste has more than 100 nCi/g of transuranic radionuclide activity. The waste as packaged is considered contact handled (i.e., less than or equal to 200 mrem/hr on the outside of the package surface), however, the dose rate of some waste inside the package may exceed 200 mrem/hr.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid ☐ Liquid ☐ Semi-solid ☒ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

Waste in boxes typically contains metal debris as the primary physical form. The metal will need to be cut into smaller pieces to fit in a container acceptable to the WIPP. Most of the waste is TRUM contaminated metals which are also contaminated with di-n-octyl phthalate.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable Charac.	N/A	***	***	Remove characteristic (1)
D002	Corrosive Charac.	N/A	***	***	Remove characteristic (1)
D004	Arsenic	N/A	***	***	Exempt (61 FR 60704)
D005	Barium	N/A	***	***	Exempt (61 FR 60704)
D006	Cadmium	N/A	***	***	Exempt (61 FR 60704)
D007	Chromium	N/A	***	***	Exempt (61 FR 60704)
D008	Lead	N/A	***	***	Exempt (61 FR 60704)
D009	Mercury	N/A	***	***	Exempt (61 FR 60704)
D010	Selenium	N/A	***	***	Exempt (61 FR 60704)
D011	Silver	N/A	***	***	Exempt (61 FR 60704)
D014	Methoxychlor	N/A	***	***	Remove characteristic (1)
D018	Benzene	N/A	***	***	Exempt (61 FR 60704)
D019	Carbon Tetrachloride	N/A	***	***	Exempt (61 FR 60704)
D027	1,4-Dichlorobenzene	N/A	***	***	Exempt (61 FR 60704)
D028	1,2-Dichloroethane	N/A	***	***	Exempt (61 FR 60704)
D029	1,1-Dichloroethylene	N/A	***	***	Exempt (61 FR 60704)
D030	2,4-Dinitrotoluene	N/A	***	***	Exempt (61 FR 60704)
D031	Heptachlor	N/A	***	***	Remove characteristic (1)
D033	Hexachlorobutadiene	N/A	***	***	Remove characteristic (1)
D034	Hexachloroethane	N/A	***	***	Exempt (61 FR 60704)
D035	Methyl Ethyl Ketone	N/A	***	***	Exempt (61 FR 60704)
D036	Nitrobenzene	N/A	***	***	Exempt (61 FR 60704)
D040	Trichloroethylene	N/A	***	***	Exempt (61 FR 60704)

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D043	Vinyl chloride	N/A	***	***	Exempt (61 FR 60704)
F001	1,1,1-Trichloroethane	Spent Solvent	***	***	Exempt (61 FR 60704)
F001	Trichloroethylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F002	Trichloroethylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F003	Acetone	Spent Solvent	***	***	Exempt (61 FR 60704)
F003	Xylene	Spent Solvent	***	***	Exempt (61 FR 60704)
F004	Cresol	Spent Solvent	***	***	Exempt (61 FR 60704)
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	Exempt (61 FR 60704)
WP01	Persistent, EHW	N/A	***	***	N/A
WP02	Persistent, DW	N/A	***	***	N/A
WSC2	Solid Corrosive	N/A	***	***	N/A
WT01	Toxic, EHW	N/A	***	***	N/A
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

(1) Characteristic waste code not currently acceptable at WIPP.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List: N/A
- ☒ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☐ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

The number and concentration of contaminants varies greatly among the boxes. One box contains F003 and F005 listed contaminants because it contains the remains of HLW tank core samples. One box contains trace quantities of carbon tetrachloride and several metals. A few boxes contain substantial quantities of lead.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☒ Treating or plan to treat on site
☐ Treating or plan to treat off site
☐ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Waste is planned to be treated at the proposed M-091 facility. The primary objective of treatment is to cut metal debris into smaller pieces so that it can be placed in a smaller box. WIPP can currently only accept a box up to a size of approximately 1.9 cubic meters. If larger containers are accepted at WIPP in the future, size reduction might not be required.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

LDR REPORT TREATABILITY GROUP DATA SHEET

Milestone Number	Due Date
M-091-01	

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes ☐ No ☒ Unknown

If yes, describe: As the M-091 mission develops, T Plant Complex will evaluate, where possible, waste minimization techniques.

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

TRUM disposed of at WIPP is exempt from the LDR treatment standards.

4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

TRUM is disposed of at WIPP.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: CWC Waste Stream: TRUM Boxes
Treatability Group Name: TRUM - Large Box

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The waste consists of metals, plastic, lead shielding, steel shielding, glass, paper/cardboard, cement, and sorbents. The material was contaminated with transuranic radionuclides from facility operations and R&D processes. The primary component in the boxes is metal that will probably need to be cut in order to fit in containers destined for WIPP.

1.3.2 History of how and where the waste was/is generated:

The waste was generated from the PFP, PUREX Plant, Radiochemistry Building, Critical Mass Storage, and Materials Engineering Laboratory.

1.3.3 Source of the regulated constituents:

Radiochemical operations around the site and D&D activities.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Accumulated and packaged by waste generators prior to storage.

2.1.2 Timeframe when waste was placed to storage?

Waste storage at CWC began in 1988 and continues.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	17

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 72.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory based on data for containers residing at the CWC as reported in the SWITS.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation by CWC.

LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 **Treatability Group Name:** TRUM - PCB
- 1.2 **Description of waste (list WSRd numbers for this waste stream, as applicable)**
The waste contains metal, plastic, wood, lead, oils (hydraulic fluid), paper, sorbents, glass (crushed fluorescent tubes), concrete, rags, absorbent/kitty litter, rubber, soil, and tape/rope designated as TRUM contaminated with PCBs. The light ballasts are typically in large boxes and the hydraulic fluid is typically in drums.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 **Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]**
Total volume (cubic meters): 110.010
- 2.2 **Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].**

Year	m ³	and/or	kg
2003	0.000		
2004	1.910		
2005	1.040		
2006	1.760		
2007	0.320		
Total	5.030		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 **Radiological Characteristics**
- 3.1.1 **Mixed waste type:** ☐ High-level ☒ Transuranic ☐ Low-level
- 3.1.2 **Handling (as package contents would need to be handled during treatment):**
☒ Contact-handled ☐ Remote-handled
- 3.1.3 **Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):**
The waste contain more than 100 nCi/g of transuranic radionuclides.
- 3.2 **Physical Form**
- 3.2.1 **Physical form of the waste:**
☒ Solid ☐ Liquid ☐ Semi-solid ☒ Debris
☐ Other (Describe in comments.)
- 3.2.2 **Comments on physical form:**
Matrix characteristics vary significantly from package to package. High confidence that PCB contamination is present.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

☐ Wastewater ☒ Non-wastewater ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D001	Ignitable Charac.	N/A	***	***	Remove characteristic (1)
D004	Arsenic	N/A	***	***	Exempt (61 FR 60704)
D006	Cadmium	N/A	***	***	Exempt (61 FR 60704)
D007	Chromium	N/A	***	***	Exempt (61 FR 60704)
D008	Lead	N/A	***	***	Exempt (61 FR 60704)
D009	Mercury	N/A	***	***	Exempt (61 FR 60704)
D010	Selenium	N/A	***	***	Exempt (61 FR 60704)
D011	Silver	N/A	***	***	Exempt (61 FR 60704)
D027	1,4-Dichlorobenzene	N/A	***	***	Exempt (61 FR 60704)
D030	1,2-Dichloroethane	N/A	***	***	Exempt (61 FR 60704)
D032	Hexachlorobenzene	N/A	***	***	Exempt (61 FR 60704)
D034	Hexachloroethane	N/A	***	***	Exempt (61 FR 60704)
D036	Nitrobenzene	N/A	***	***	Exempt (61 FR 60704)
D037	Pentachlorophenol	N/A	***	***	Exempt (61 FR 60704)
D042	2,4,6-Trichlorophenol	N/A	***	***	Remove characteristic (1)
F001	1,1,1-Trichloroethane	N/A	***	***	Exempt (61 FR 60704)
F001	Trichloroethylene	N/A	***	***	Exempt (61 FR 60704)
F002	Methylene Chloride	Spent Solvent	***	***	Exempt (61 FR 60704)
F002	Trichloroethylene	N/A	***	***	Exempt (61 FR 60704)
F003	Acetone	Spent Solvent	***	***	Exempt (61 FR 60704)
F004	Cresols	Spent Solvent	***	***	Exempt (61 FR 60704)
F005	Methyl Ethyl Ketone	Spent Solvent	***	***	Exempt (61 FR 60704)
WSC2	Solid Corrosive	N/A	***	***	N/A
WT01	Toxic, EHW	N/A	***	***	N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
WT02	Toxic, DW	N/A	***	***	N/A

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

(1) Characteristic waste code not currently acceptable at WIPP.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
- ☒ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
- ☐ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

3.3.4 Does this waste stream contain PCBs?

- ☒ Yes ☐ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

- ☒ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

- ☐ < 50 ppm ☒ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

- ☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

None.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

- ☐ Yes ☒ No

If yes, provide details: N/A

LDR REPORT TREATABILITY GROUP DATA SHEET

- 4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.**

- ☐ No treatment required (skip to Section 5.0)
☒ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

- 4.3 Planned treatment method, facility, extent of treatment capacity available:**

Waste is planned to be treated under the proposed M-091 capability. Possible treatment techniques include thermal treatment (e.g. molten salt oxidation, vitrification, pyrolysis) or chemical treatment (e.g. chemical oxidation, chemical reduction, or dechlorination) or none if not required by WIPP.

- 4.4 Treatment schedule information:**

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

- 4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):**

Milestone Number	Due Date
M-091-01	

- 4.6 Proposed new Tri-Party Agreement treatment milestones:**

See Section 4.4.

- 4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?**

- ☒ Yes ☐ No ☐ Unknown

If yes, describe: One treatment operation will likely consist of box opening and sorting of the ballasts into separate containers. This action alone will substantially reduce the PCB waste volume.

- 4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.**

TRUM disposed of at WIPP is exempt from the LDR treatment standards.

- 4.9 Key Assumptions:**

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

TRUM is disposed of at WIPP.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 **Unit/Plant name:** 325 HWTU **Waste Stream:** TRUM PCB
Treatability Group Name: TRUM - PCB
- 1.2 **Applicable profile number(s) for this waste stream:**
PNNL-230-0001-00, PNNL-250-0001-00
- 1.3 **Waste stream source information**
- 1.3.1 **General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Subject waste was generated from PNNL laboratory operations.
- 1.3.2 **History of how and where the waste was/is generated:**
Waste is generated from routine laboratory operations at PNNL.
- 1.3.3 **Source of the regulated constituents:**
Waste stream may consist of different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents, including PCBs. This waste stream also includes hazardous debris.
- 1.3.4 **Source of the information (e.g., analytical data, process knowledge, document number, etc.)**
Wastes are characterized as specified in PNNL Waste Stream Profiles.
- 1.3.5 **Additional notes:**
N/A

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 **Current storage method**

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 **How was the waste managed prior to storage?**

Waste was managed in 90 day or Satellite Accumulation areas prior to being transferred to storage.

2.1.2 **Timeframe when waste was placed to storage?**

The wastes inventoried below and currently stored at 325 HWTU were placed in storage between 10/24/1997 and 2/26/02.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage Inventory locations:

Building/Room Number	Number of Containers/Tanks
325/528	2

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.010

Date of inventory values: 01/10/2003

Comments on waste inventory:

This represents the TRUM wastes containing PCBs currently in this storage location.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment Information:

☒ Assessment has been completed.

Document Number	Date
A&E-DWR-02-004	05/31/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the 325 HWTU. However, further confirmatory NDA may be performed on TRUM packages that are consolidated at the 325 HWTU. No TPA milestone is directly associated with storage of this waste stream.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Assessment date to be determined.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Laboratory staff routinely evaluate their processes to determine if less reagents or less hazardous reagents can be used in the process. The Radioactive Waste Operations Group routinely assess the possibility of bulking and absorbing wastes to minimize the number of containers shipped to CWC.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

Projects generating wastes usually have strict requirements for process outcomes. Hence, it is not possible to project specific volume reductions. As noted in Section 3.2, each project generating this type of waste is reviewed to assure the waste volumes generated are minimized.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: CWC Waste Stream: TRUM PCBs
Treatability Group Name: TRUM - PCB

1.2 Applicable profile number(s) for this waste stream:
N/A

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

The waste stream consists of metals, wood, lead, glass, concrete, absorbed organic liquids, cloth/rags, absorbents, and absorbed liquids. All contain residues of hydraulic fluids contaminated with PCBs.

1.3.2 History of how and where the waste was/is generated:

The waste was generated from facility or equipment operation and maintenance waste.

1.3.3 Source of the regulated constituents:

Hydraulic fluids containing PCBs.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data and process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- ☐ Container (pad) ☒ Container (covered) ☐ Container (retrievably buried)
☐ Tank ☐ DST ☐ SST
☐ Other (explain):

2.1.1 How was the waste managed prior to storage?

Accumulated and packaged by waste generator prior to storage at CWC.

2.1.2 Timeframe when waste was placed to storage?

1988-2002.

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	122

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 110.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory based on data for containers residing at the CWC as reported in the SWITS.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST

☐ Other Area(s) (list):

☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

- 2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?**

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

- 2.10 Are there any plans to submit requests for variances or other exemptions related to storage?**

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

- 2.11.1 Is further characterization needed about the waste prior to acceptance for storage?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

- 2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

- 2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?**

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

- 2.12 Other key assumptions related to storage, inventory, and generation information:**

Additional TRUM PCB waste is not expected to be generated in the future by CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Minimization activities occur before the waste is shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

There is no projected generation from CWC.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

1.1 Unit/Plant name: PFP Waste Stream: Hydraulic Fluids and Associated Debris

Treatability Group Name: TRUM - PCB

1.2 Applicable profile number(s) for this waste stream:
PFPX-20H-0001.

1.3 Waste stream source information

1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):

Radiologically contaminated spent PCB hydraulic oil and capacitor fluid and associated contaminated debris.

1.3.2 History of how and where the waste was/is generated:

PCB oil was used in PFP for hydraulic systems and as a conductive medium in electrical capacitors for induction furnaces. The PCB oil is contained within the original system where originally used as hydraulic fluid. Waste not yet generated. Fluids still reside in capacitors.

1.3.3 Source of the regulated constituents:

Intrinsically hazardous.

1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)

Analytical data, process knowledge.

1.3.5 Additional notes:

None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|--|---|
| <input type="checkbox"/> Container (pad) | <input type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

N/A

2.1.2 Timeframe when waste was placed to storage?

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks

2.3 Current stored inventory for this stream.

Total volume (cubic meters):

Date of inventory values:

Comments on waste inventory:

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☐ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	1.910		
2005	1.040		
2006	1.760		
2007	0.320		
Total	5.030		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
PFP Env. Compliance Assess; Ltr. #01-A&E-129	09/13/2001

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
N/A	N/A

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☒ Yes ☐ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

Will be characterized before transfer to CWC. No commitment is necessary for the characterization needs on this MLLW.

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☒ Yes ☐ No

If yes, provide date assessment conducted: CY 2001

If yes, provide document number or other identification:

PFP 2001 Waste Minimization Evaluation for LDR Report Waste Streams, Letter # M2100-02-016

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

PFP has a waste minimization program. A hierarchical approach to environmental management is applied to all types of pollution and waste generating activities. Pollution prevention and waste minimization, through source reduction, is the preferred option, followed by environmentally safe recycling. Treatment to reduce the quantity, toxicity, and/or mobility will be considered only when prevention or recycling is not possible or practical. Environmentally safe disposal is the last option. Segregation is applicable in all of these activities.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

PFP is currently in a clean up and stabilization mode. Clean up and stabilization operations tend to increase production of waste. PFP has a waste minimization program which looks for further opportunities to reduce waste production or produce waste in a less hazardous form.

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LDR REPORT TREATABILITY GROUP DATA SHEET

1.0 WASTE STREAM IDENTIFICATION

- 1.1 Treatability Group Name: TRUM - RH
- 1.2 Description of waste (list WSRd numbers for this waste stream, as applicable)
- The waste consists of inner container, iron-based metals, lead, soil, lead shielding, and steel shielding. Waste is from the clean-out of hot cells from research/development laboratories. The relative waste quantity is small, because the waste matrix contains a large percentage of lead and steel shielding materials.

2.0 WASTE INVENTORY AND GENERATION

- 2.1 Current total inventory for this waste stream (stored waste only, not accumulation areas). [Equals sum of location-specific data sheets for this treatability group.]
- Total volume (cubic meters): 56.624
- 2.2 Estimated generation projection by calendar year: [equals annual sums of location-specific data sheets for this treatability group].

Year	m ³	and/or	kg
2003	3.256		
2004	4.000		
2005	3.000		
2006	3.000		
2007	2.600		
Total	15.856		

3.0 WASTE STREAM CHARACTERIZATION

- 3.1 Radiological Characteristics
- 3.1.1 Mixed waste type: ☐ High-level ☒ Transuranic ☐ Low-level
- 3.1.2 Handling (as package contents would need to be handled during treatment):
- ☐ Contact-handled ☒ Remote-handled
- 3.1.3 Comments on radiological characteristics (e.g., more specific information on content, treatment concerns caused by radiation, confidence level):
- The waste contains transuranic radionuclides greater than 100 nCi/g. The waste also contains non-transuranic radioactivity. Typical concentrations exceed 1,000 Ci/m³ for Sr90, 1,000 Ci/m³ for Y90, 1,000 Ci/m³ for Cs137, and 950 Ci/m³ for Ba137m.

LDR REPORT TREATABILITY GROUP DATA SHEET

3.2 Physical Form

3.2.1 Physical form of the waste:

- ☒ Solid
 ☐ Liquid
 ☐ Semi-solid
 ☒ Debris
☐ Other (Describe in comments.)

3.2.2 Comments on physical form:

Waste is from the clean-out of hot cells from research/development laboratories. The relative waste quantity is small, because the waste matrix contains a large percentage of shielding materials.

3.3 Regulated constituents and wastewater/non-wastewater category

3.3.1 Wastewater/non-wastewater under RCRA

- ☐ Wastewater
 ☒ Non-wastewater
 ☐ Unknown

3.3.2 Regulated constituents table including treatment requirements and UHCs, if applicable.

EPA/ State Number	Waste Description	LDR Sub- Category*	Concentration (Typical or Range)**	Basis	LDR Treatment Concentration Standard or Technology Code
D004	Arsenic	N/A	***	***	Exempt (61 FR 60704)
D005	Barium	N/A	***	***	Exempt (61 FR 60704)
D006	Cadmium	N/A	***	***	Exempt (61 FR 60704)
D007	Chromium	N/A	***	***	Exempt (61 FR 60704)
D008	Lead	N/A	***	***	Exempt (61 FR 60704)

* LDR Subcategory marked N/A if no existing subcategory adequately describes this waste, or if there are no defined subcategories for the waste number (40 CFR 268.40).

** If waste is not consistent in concentration, this may not apply. Described in Section 3.3.6.

*** The concentration varies and is based on process knowledge and/or analytical data.

3.3.3 List any waste numbers from Section 3.3.2 for which the waste stream already meets established LDR treatment standards.

- ☐ List:
☒ No LDR treatment required (e.g. TRUM waste destined for WIPP, exclusion, etc.)
☐ None (i.e. all constituents/waste numbers of this waste stream still require treatment).

LDR REPORT TREATABILITY GROUP DATA SHEET

3.3.4 Does this waste stream contain PCBs?

☐ Yes ☒ No ☐ Unknown

If no or unknown, skip to Section 3.3.5.

3.3.4.1 Is waste stream subject to TSCA regulations for PCBs?

☐ Yes ☐ No ☐ Unknown

3.3.4.2 Indicate the PCB concentration range.

☐ < 50 ppm ☐ ≥ 50 ppm ☐ Unknown

3.3.5 What is the confidence level for the regulated constituents?

☐ Low ☒ Medium ☐ High

3.3.6 Comments on regulated constituents and wastewater/non-wastewater category:

None.

4.0 WASTE STREAM TREATMENT

4.1 Is this waste stream currently being treated?

☐ Yes ☒ No

If yes, provide details: N/A

4.2 Planned treatment: Check the appropriate box indicating future plans for treating this waste stream to meet applicable regulations, including LDR treatment standards.

- ☐ No treatment required (skip to Section 5.0)
☒ Treating or plan to treat on site
☐ Treating or plan to treat off site
☒ Treatment options still being assessed

4.3 Planned treatment method, facility, extent of treatment capacity available:

Wastes are planned to be treated under the proposed M-091 capability, as needed to meet the applicable waste acceptance criteria at WIPP. The extent of the treatment and technologies has yet to be determined, but the techniques will likely include segregation, decontamination, solidification, and repackaging. The treatment technologies and capacity of M-091 have yet to be determined.

4.4 Treatment schedule information:

Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

4.5 Applicable Tri-Party Agreement treatment milestone numbers (including permitting):

Milestone Number	Due Date
M-091-01	

LDR REPORT TREATABILITY GROUP DATA SHEET

4.6 Proposed new Tri-Party Agreement treatment milestones:

See Section 4.4.

4.7 If treating or planning to treat on site, was or will waste minimization be addressed in developing and/or selecting the treatment method?

☐ Yes

☐ No

☒ Unknown

If yes, describe: N/A

4.8 List or describe treatability equivalency petitions, rulemaking petitions, and case-by-case exemptions needed for treatment or already in place.

TRUM disposed of at WIPP is exempt from the LDR treatment standards.

4.9 Key Assumptions:

None.

5.0 WASTE STREAM DISPOSAL

After treatment, how will the waste stream be disposed of (include locations, milestone numbers, variances required, etc. as applicable):

TRUM is disposed of at WIPP.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name:** 325 HWTU **Waste Stream:** TRUM-RH
Treatability Group Name: TRUM - RH
- 1.2 Applicable profile number(s) for this waste stream:**
PNNL-260-0001-00, PNNL-270-0001-00
- 1.3 Waste stream source information**
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):**
Subject waste was generated from PNNL laboratory operations.
- 1.3.2 History of how and where the waste was/is generated:**
Waste is generated from routine laboratory operations and hot cell clean outs at PNNL.
- 1.3.3 Source of the regulated constituents:**
Waste stream may consist of different inorganic and organic solids and liquids that are contaminated with inorganic and organic regulated dangerous waste constituents. This waste stream also includes hazardous debris.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.):**
Wastes are characterized as specified in PNNL Waste Stream Profiles.
- 1.3.5 Additional notes:**
N/A

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

- 2.1 Current storage method**
- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |
- 2.1.1 How was the waste managed prior to storage?**
The waste was managed in 90-day or Satellite Accumulation areas prior to being transferred to storage.
- 2.1.2 Timeframe when waste was placed to storage?**
The wastes inventoried and currently stored at the 325 HWTU were placed in storage between 4/20/00 and 12/1/02.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
325/528	1
325/SAL	3

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 0.624

Date of inventory values: 01/10/2003

Comments on waste inventory:

This represents the RH TRUM wastes currently in this storage location.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

N/A

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	3.256		
2004	3.000		
2005	3.000		
2006	3.000		
2007	2.600		
Total	14.856		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-DWR-02-004	05/31/2002

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-20	06/30/1992

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

If yes or unknown, comment on characterization for disposal.

N/A

2.12 Other key assumptions related to storage, inventory, and generation information:

PNNL Waste Management requests full chemical and radiological characterization from the laboratory generators prior to receiving the waste into the 325 HWTU. The inventory information is for what is currently in storage in the specified 325 HWTU location(s). This includes current generation and/or M-91 wastes. The projections in section 2.6 of this data sheet include current generation and M-91 volumes.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

Assessment Date to be determined.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

Laboratory staff routinely evaluate their processes to determine if less reagents or less hazardous reagents can be used in the process. The Radioactive Waste Operations Group routinely assess the possibility of consolidating items for shipment to CWC.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

Projects generating wastes usually have strict requirements for process outcomes. Hence, it is not possible to project specific volume reductions. As noted in Section 3.2, each project generating this type of waste is reviewed to assure that waste volumes generated are minimized.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

1.0 WASTE STREAM IDENTIFICATION AND SOURCE

- 1.1 Unit/Plant name: CWC Waste Stream: RH TRUM
Treatability Group Name: TRUM - RH
- 1.2 Applicable profile number(s) for this waste stream:
N/A
- 1.3 Waste stream source information
- 1.3.1 General description of the waste (e.g., spill clean-up waste, discarded lab materials, maintenance waste):
The waste consists of plastics, metals, lead shielding, steel shielding, glass, paper/cardboard, cement, and absorbents that are contaminated with hazardous constituents. The current RH waste is packaged in shielded containers, so that it can be stored as CH waste.
- 1.3.2 History of how and where the waste was/is generated:
The waste was generated from the PFP, PUREX Plant, Critical Mass Laboratory, Materials Engineering Laboratory, Kerr-McGee, the Chemical Engineering Building, Post-Irradiation Test Facility, REDOX facility, Radiochemistry Building, the Semi-works D&D, Radiological Calibrations Laboratory, and the Fuels Development Laboratory.
- 1.3.3 Source of the regulated constituents:
See 1.3.1 and 1.3.2.
- 1.3.4 Source of the information (e.g., analytical data, process knowledge, document number, etc.)
Analytical data and process knowledge.
- 1.3.5 Additional notes:
None.

2.0 WASTE STREAM STORAGE, INVENTORY, AND GENERATION INFORMATION

(NOTE: For waste in satellite accumulation areas and 90-day accumulation areas, skip to Section 2.6.)

2.1 Current storage method

- | | | |
|---|---|---|
| <input type="checkbox"/> Container (pad) | <input checked="" type="checkbox"/> Container (covered) | <input type="checkbox"/> Container (retrievably buried) |
| <input type="checkbox"/> Tank | <input type="checkbox"/> DST | <input type="checkbox"/> SST |
| <input type="checkbox"/> Other (explain): | | |

2.1.1 How was the waste managed prior to storage?

Accumulated and packaged at various locations prior to storage.

2.1.2 Timeframe when waste was placed to storage?

Waste storage in CWC began in 1988 and continues.

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.2 Storage inventory locations:

Building/Room Number	Number of Containers/Tanks
CWC	11

2.3 Current stored inventory for this stream.

Total volume (cubic meters): 56.000

Date of inventory values: 01/06/2003

Comments on waste inventory:

Inventory based on data for containers residing at the CWC as reported in the SWITS.

2.4 Is storage capacity at this location potentially an issue for this waste stream?

☐ Yes ☒ No

If yes, what is the total estimated storage capacity? N/A

When is this capacity expected to be reached? N/A

Bases and assumptions used:

No issues with CWC storage based on 20 year waste generation forecast.

2.5 Planned storage areas for this waste:

☒ Current Location ☒ CWC ☐ DST
☐ Other Area(s) (list):
☐ None

2.6 Estimated generation projection by calendar year (includes waste in satellite and 90-day accumulation areas):

Year	m ³	and/or	kg
2003	0.000		
2004	1.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	1.000		

2.7 DOE Storage Compliance Assessment information:

☒ Assessment has been completed.

Document Number	Date
A&E-SEC-02-001	01/21/2002

☐ Assessment has been scheduled. Scheduled date:

☐ Other. Explain:

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.8 Applicable Tri-Party Agreement milestones related to storage at this location:

Milestone Number	Due Date
M-020-12	10/31/1991

2.9 Has there ever been any non-permitted, unauthorized release of this waste stream from this storage unit to the environment?

☐ Yes ☒ No

If yes, summarize releases and quantities and provide date:

N/A

2.10 Are there any plans to submit requests for variances or other exemptions related to storage?

☐ Yes ☒ No

If yes, explain: N/A

2.11 Characterization

2.11.1 Is further characterization needed about the waste prior to acceptance for storage?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for storage.

N/A

2.11.2 Is further characterization needed about the waste prior to acceptance for treatment?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for treatment.

N/A

2.11.3 Is further characterization needed about the waste prior to acceptance for disposal?

☐ Yes ☒ No ☐ Unknown at this time

Milestone Number	Due Date
N/A	N/A

If yes or unknown, comment on characterization for disposal.

N/A

LDR REPORT WASTE LOCATION-SPECIFIC DATA SHEET

2.12 Other key assumptions related to storage, inventory, and generation information:

None.

3.0 WASTE MINIMIZATION

3.1 Has a waste minimization assessment been completed for this stream?

☐ Yes ☒ No

If yes, provide date assessment conducted: N/A

If yes, provide document number or other identification:

N/A

If no, provide date assessment will be completed, or if waste stream is no longer generated, then indicate N/A:

None planned - waste not generated at CWC.

3.2 Provide details of current and proposed methods for minimizing the generation of this stream (e.g., process changes to reduce or eliminate LDR waste, methods to reduce volume through segregation and avoidance of commingling, substitution of less-toxic materials):

These activities occur before the wastes are transferred/shipped to CWC. There are few opportunities to reduce waste volumes placed into storage.

3.3 Waste minimization schedule

3.3.1 Reduction achieved during calendar year 2002 (volume or mass)

0.000 m³

3.3.2 Projected future waste volume reductions

Year	m ³	and/or	kg
2003	0.000		
2004	0.000		
2005	0.000		
2006	0.000		
2007	0.000		
Total	0.000		

3.3.3 Bases and assumptions used in above estimates:

None.

APPENDIX C

POTENTIAL MIXED WASTE

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APPENDIX C

POTENTIAL MIXED WASTE

The origin and definition of potential mixed waste is discussed in Section 2.3 of this volume. The content of each column is defined here.

Table C-1. Potential Mixed Waste Table Explanation.

Column	Column Title	Content Definition
A	Company, project	Self-explanatory.
B	Common name or description	Self-explanatory.
C	Facility number	Self-explanatory.
D	Solid waste with potential for mixed waste not integral to the building or structure (no use)	"Stuff" (e.g., equipment, materials) that is not currently in use and for which no future use is currently known, but for which the final disposition has not yet been determined. The "stuff" is not currently considered mixed waste and may or may not currently be contaminated, but includes items with the potential for becoming mixed waste, depending on future decisions regarding the ultimate use and disposition. "Stuff" integral to the building is not to be included. "None" in this column indicates the project/facility contains no "stuff" known to be in this category.
E	Materials with potential to become solid waste and subsequently mixed waste (in standby, possible use)	"Stuff" (e.g., equipment, materials) that is currently in "standby" and may at some point, if it becomes waste, designate as mixed waste. Provide details for standby equipment/material that has a clear use or path for reuse/recycling, but may at some point, if/when it becomes waste, designate as mixed waste. A future use must be documented for material to be included in column E of the Potential Mixed Waste Table. Documentation of the future use of items in column E shall be available upon request. Columns D and E encompass contents of buildings and structures only. Floor sweepings, dust, etc., are not included. The structures themselves, including contaminated walls, floors, etc., are not included. Equipment and chemicals that are in use are not included.
F	DOE assessment of storage methods	Indicate when the DOE assessment for the purpose of meeting LDR report requirements is scheduled. Provide an alternative explanation if required (e.g., the assessment completion date, key facility in surveillance and maintenance phase, further DOE LDR assessment not needed).
G	Schedule information	Include schedule information relative to materials detailed in these columns. Include references to pertinent documents (closure plans, RODs) and identify any applicable operable units or other Tri-Party Agreement drivers for remediation. Provide a date for completing the data gap plan, if applicable. Also, for major negotiations related to the path forward for the potential mixed waste, such as the start of facility transition or deactivation, provide a date for starting the negotiations with the regulators.

Table C-1. Potential Mixed Waste Table Explanation.

Column	Column Title	Content Definition
H	Integrating factors	Include factors that should be considered when determining when negotiations should occur. These include factors such as relative threat to human health and the environment of no action, ties to other activities such as operable unit remediation, ties of action to facility missions, etc.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Nuclear Material Stabilization Project	216-Z-9 Crib Soil Removal Glovebox (inactive)	216Z9A	Soil Removal Glovebox. Air compressor (potential for regulated oil). Residual contamination within glovebox (potential for mixed wastes during cleanout). Inactive ventilation exhaust ductwork (potential for residual contamination). Note: Glovebox probably will function as containment when conducting facility cleanout/transition activities.	None	DOE assessment: Completed 3 rd quarter CY 2001	Tri-Party Agreement milestone M-083-41, Complete Transition and Dismantlement of the 216-Z-9 Crib Complex (due date: September 30, 2010) Data gap plan: NA Starting negotiations: NA (completed)	None
Fluor Hanford, Inc., Nuclear Material Stabilization Project	Waste Incinerator Facility (inactive)	232Z	Incinerator and Leaching Gloveboxes. Residual contamination within gloveboxes (potential for mixed waste during cleanout). Inactive portions of ventilation exhaust ductwork and control equipment (potential for residual contamination). Note: Gloveboxes to be maintained and used for containment when conducting facility cleanout/transition activities.	None	DOE assessment: Completed 3 rd quarter CY 2001	Tri-Party Agreement milestone M-083-40, Complete Transition and Dismantlement of the 232-Z Bldg Incinerator (due date: September 30, 2006) Data gap plan: NA Starting negotiations: NA (completed)	None

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Nuclear Material Stabilization Project	Plutonium Finishing Plant	234-5Z	Inactive process tanks, piping, and control equipment (Remote Mechanical "A" & "C" Lines). Containment gloveboxes (Remote Mechanical "A" & "C" Lines). Lead-lined gloves (some older gloves may designate as TCLP leachable). Radioactive Acid Digestion Test Unit (RADTU) Gloveboxes (potential for residual contamination during cleanout). Inactive portions of HVAC exhaust ductwork (potential for mixed wastes during cleanout). Note: Gloveboxes to be maintained and used for containment when conducting facility cleanout/transition activities.	Residues and low-grade SNM solids.	DOE assessment: Completed 3 rd quarter CY 2001	M-083-44, Complete Transition of the 234-5Z (plutonium conversion facility) and ZA (plutonium conversion support facility), 243-Z Low Level Waste Treatment Facility, 291-Z Exhaust Building, and 291-Z-1 Exhaust Stack to support PFP Decommissioning, due September 30, 2015. Tri-Party Agreement milestone M-083-14, Complete 100% of the Legacy Pu Holdup Removal as Defined in the Legacy Pu Holdup Removal Plan for PFP required by MX-083-12-T01 (due date: September, 2006). Data gap plan: NA Starting negotiations: NA (completed)	None

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Nuclear Material Stabilization Project	Plutonium Reclamation Facility	236Z	Pu nitrate reclamation tanks, piping, and control equipment. Miscellaneous treatment tanks, piping, and control equipment. Containment gloveboxes (reclamation and miscellaneous treatment). Chem. prep tanks, piping, and control equipment. Residual contamination within inactive process equipment and gloveboxes (potential for mixed waste during cleanout). Potential for liquids within inactive tanks, vessels, and piping. Miscellaneous tools and maintenance equipment located within canyon cell. Note: Gloveboxes to be maintained and used for containment when conducting facility cleanout/transition activities.	None	DOE assessment: Completed 3 rd quarter CY 2001	Tri-Party Agreement milestone M-083-43, Complete Transition of the 242-Z Waste Treatment Facility and 236-Z Plutonium Reclamation Facility to Support PFP Decommissioning (due date: September 30, 2013). Data gap plan: NA Starting negotiations: NA (completed)	None

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Nuclear Material Stabilization Project	MW Treatment and Storage Tanks	241Z	Tank D-6, associated piping, line flushing and sludge cleanout. Tank D-6 deactivated in 1972 because of failure. Waste transferred from tank and tank/piping isolated.	None	DOE assessment: Completed 1st quarter CY 2001	Tri-Party Agreement milestone M-083-42, Complete Transition and Dismantlement of the 241-Z Waste Treatment Facility (due date: September 30, 2011) M-083-30, Submit 241-Z Waste TSD And Glovebox HA-20mb Closure Plan (due date: July, 2003). M-083-31 Discontinue Waste Discharges From The 241-Z Tanks To Tank Farms (due date: June, 2005). M-083-32 Complete Closure Of The PFP 241-Z TSD Unit (due date: September, 2011) Data gap plan: NA Starting negotiations: NA (completed)	None.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Nuclear Material Stabilization Project	PFP Settling Tanks	241-Z-361	Tank containing waste from past practices	None	DOE assessment: 1 st quarter CY 2006	CERCLA past-practice unit scheduled for cleanup. Schedule is pending outcome of Engineering Evaluation/Cost Analysis. Data gap plan: 1 st quarter CY 2007 Starting negotiations: Will be addressed during development of Engineering Evaluation/Cost Analysis.	None
Fluor Hanford, Inc., Nuclear Material Stabilization Project	Waste Treatment Facility (inactive)	242Z	Miscellaneous process tanks, first floor and mezzanine level. Process piping. Containment gloveboxes. Potential for liquids within tanks, vessels, and piping. Residual contamination within gloveboxes, tanks, and piping (potential for mixed waste during cleanout).	None	No assessments. Facility is sealed currently because of high levels of radioactive contamination resulting from cation exchange column explosion, August 1976. DOE assessment: NA	Tri-Party Agreement milestone M-083-43, Complete Transition of the 234-Z Waste Treatment Facility and 236-Z Plutonium Reclamation Facility to Support PFP Decommissioning (due date: September 30, 2013). Data gap plan: NA Starting negotiations: NA (completed)	None.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Nuclear Material Stabilization Project	SNM Storage/ Repackaging	2736Z	None	Residues and low-grade SNM solids.	DOE assessment: Completed 3 rd quarter CY 2001	Tri-Party Agreement milestone M-083-00A, Complete PFP Facility Transition and Selected Disposition Activities (due date: September 30, 2016). Data gap plan: NA Starting negotiations: NA (completed)	None
Fluor Hanford, Inc., Central Plateau Project	Rail Car Staging Area	212R Rail Spur, and PUREX Rail Cut	None	Rail car components (lead casks, liquids within the lead casks, bearings, and lubricants)	DOE assessment: 4 th quarter CY 2005	The equipment reuse/recycling program funding is no longer available. Without future funding, these materials will likely have to be disposed of as solid waste. Discussions with Ecology are planned for CY 2003 to explore disposal options. Data gap plan: 4 th quarter CY 2006 Starting negotiations: 2003	None
Fluor Hanford, Inc., Central Plateau Project	Heavy Equipment Staging Area	4734D	None	Heavy equipment components	DOE assessment: 3 rd quarter CY 2006	The equipment is being actively managed for reuse/recycle through 2006. Data gap plan: 3 rd quarter CY 2007 Starting negotiations: 2006 (if necessary)	None

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	200 North Area	212-N, 212-P, 212-R	212-R contains a burial box with some radiologically-contaminated equipment. The 212-N transfer bay contains 14 wooden boxes of suspected TRUM nuclear fuel fabrication equipment from the 308 Building, Room 213, moved in 1982, and a single wooden box from 308 Building, Room 212, transferred in 1983. No non-radioactive contamination has been identified in this facility that would support a MW designation. 212-P used to store PCBs. PMW will be evaluated in the upcoming assessment.	None	DOE assessment: 4 th quarter CY 2005	Data gap plan: 4 th quarter CY 2006 Starting negotiations: TBD	None
Fluor Hanford, Inc., Central Plateau Project	IMUSTs not associated with a building	216-BC-201, 216-BY-201, 216-TY-201, 241-B-361, 241-U-361, 241-T-361	Tank system heels in each IMUST	None	DOE assessment: 2 nd quarter CY 2006	Data gap plan: 2 nd quarter CY 2007 Starting negotiations: TBD	The IMUSTs will be dispositioned with their respective cribs. Further information regarding the remediation strategy can be found in DOE/RL-98-28, Rev. 0, 200 Areas Remedial Investigation/ Feasibility Study Implementation Plan - Environmental Restoration Program.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	224-T (Includes TRUSAF)	224-T	D1: Potential for liquid in vessels. The presence or absence of mixed waste in the 224-T cells is not documented and the potential for waste was identified in the Silver List D2: There is a glovebox/hood in a plywood enclosure (there may be vessels in the glovebox/hood), but mixed waste is not expected to be found in these items.	None	DOE assessment: Completed 1 st quarter CY 2002	D1 and D2: Data gap plan: Completed 4 th quarter CY 2002 Starting negotiations: 2012	The potential for MW presence in the cells is a former Silver List issue that has not been closed out.
Fluor Hanford, Inc., Central Plateau Project	231Z	231Z	Liquid in vessels and chemicals in gloveboxes.	None	DOE assessment: 1 st quarter CY 2006	Data gap plan: 1 st quarter CY 2007 Starting negotiations: TBD	The potential for MW to be present is a former Silver List issue that has not been closed out. Media that might designate as MW, if present, are expected to be contained in stainless steel vessels. It is assumed that the media, if present, are stable and pose no threat to human health or the environment.
Fluor Hanford, Inc., River Corridor Project	242-B/BL	242-B/BL	None	Lead bricks/shielding	DOE assessment: 1 st quarter CY 2007	Data gap plan: 1st quarter CY 2008 Starting negotiations: TBD	Plans are being made to evaluate the radiological conditions and disposition as many lead bricks/shielding as possible during 2003.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	B Plant	207-BA, 211-B, 212-B, 217-B, 221-B, 221-BB, 221-BF, 221-BG, 271-B, 276-B, 291-BA, 291-B, 291-BB, 291-BD, 291-BF, 291-BG, 292-B, 2711-B, 2715-B, 270-E-1 (IMUST)	S&M Plan, DOE/RL-99-24, identifies the hazardous material remaining in the facility. Tank heels relate to TSD tank system and 270-E-1.	S&M Plan, DOE/RL-99-24, identifies the hazardous material remaining in the facility.	DOE assessment: NA	D & E: As described in the S&M Plan, DOE/RL-99-24, Rev 0. Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	B Plant is in the S&M phase of the facility decommissioning process, as described in Chapter 8.0 of the Tri-Party Agreement. Final disposition of the IMUST and B Plant will be scheduled such that the activities are performed concurrently. See location-specific data sheets for details regarding waste stored in Cell 4 and in the containment building.
Fluor Hanford, Inc., Central Plateau Project	224-B Building	224-B	Chemicals associated with operations at the 224-B Building may exist as residual deposition in tanks. Potential mixed waste remains in the 224-B process cells.	None	DOE assessment: 4 th quarter CY 2006	Data gap plan: 4 th quarter CY 2007 Starting negotiations: TBD	Facility decommissioning is being planned.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	PUREX	202-A, 203-A, 204-A, 206-A, 211-A, 212-A, 213-A, 214-A/B/C/D, 215-A, 216-A, 225-EC, 271-AB, 276-A, 281-A, 291-A, 291-AB/AC/AD/AE/AG/AH/AJ/AK., 291-A-1, 292-AA/AB, 293-A, A93-AA, 294-A, 295-A, 295-AA/AB/AC/AD/AE, 296-A-1, 296-A-2, 296-A-3, 296-A-5A/5B, 296-A-6/7/8/9/10/14/24, 2711-A-1, 2712-A, 2714-A/U, 217-A, 252-AC/AB, 216-A-5 (IMUST)	S&M Plan, DOE/RL-98-35, identifies the hazardous material remaining in the facility. Tank heels relate to TSD tank system and 216-A-5.	S&M Plan, DOE/RL-98-35, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	PUREX is in the S&M phase of the facility decommissioning process described in Chapter 8.0 of the Tri-Party Agreement. Final disposition of the IMUST at PUREX will be scheduled such that the activities are performed concurrently. See the location-specific data sheet for TSD waste storage at PUREX.
Fluor Hanford, Inc., Central Plateau Project	REDOX	202-S, 291-S, 292-S, 293-S, 2718-S, 211-S, 2711-S, 2715-S, 2904-SA, 2710-S, 2706-S,	S&M Plan, DOE/RL-98-19, identifies the hazardous material remaining in the facility.	S&M Plan, DOE/RL-98-19, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	REDOX is in the S&M phase of the facility decommissioning process described in Chapter 8.0 of the Tri-Party Agreement.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	U Plant	221-U, 276-U, 211-UA, 291-U, 292-U, 241-WR-001, 241-WR-002, 241-WR-003, 241-WR-004, 241-WR-005, 241-WR-006, 241-WR-007, 241-WR-008, 241-WR-009, 2716-U, 2714-U	S&M Plan, DOE/RL-98-20, identifies the hazardous material remaining in the facility.	S&M Plan, DOE/RL-98-20, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	U Plant is identified in Chapter 8 of the Tri-Party Agreement, as one of the Hanford facilities under S&M. Discussions with the regulators are ongoing to perform CDI at U Plant. Final disposition of the WR vault and U Plant will be scheduled such that the activities are performed concurrently.
Fluor Hanford, Inc., Central Plateau Project	UO3 Facility	224-U, 272-U, 2715-UA, 203-U, 203-UX, 211-U, 207-U, 270-W (IMUST)	S&M Plan, DOE/RL-98-22, identifies the hazardous material remaining in the facility.	S&M Plan, DOE/RL-98-22, identifies the hazardous material remaining in the facility.	DOE assessment: NA	Data gap plan: NA Starting negotiations: Complete. Any additional negotiations will be completed in accordance with the Tri-Party Agreement Action Plan Section 8.6.2.	UO ₃ is in the S&M phase of the facility decommissioning process described in Chapter 8.0 of the Tri-Party Agreement. The 270-W will be characterized as part of the 200-PW-2 Operable Unit under Tri-Party Agreement Interim Milestone M-015-43B, Submit 200-PW-2 OU RI Report Including the Past Practice Waste Sites in the 200-PW-4 General Process Waste Group due 6/30/2004.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	314	314	Large equipment previously used in the facility. Equipment might be radioactively contaminated and might also contain items such as asbestos insulation, thermostats, mercury switches, circuit boards, or lead solder that could cause all or parts of the equipment to designate as mixed waste. The extent of contamination on internal components is currently unknown.	None	DOE assessment: 1 st quarter CY 2003	Potential MW disposition will be performed in accordance with Tri-Party Agreement milestone M-094-00, Complete Disposition of 300 Area Surplus Facilities (due 9/30/2018). Data gap plan: 1 st quarter CY 2004 Starting negotiations: Completed during River Corridor negotiations.	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.
Fluor Hanford, Inc., Central Plateau Project	327 Building	327	None	Lead bricks being stored for future use as shielding during decontamination and decommissioning activities	DOE assessment: Completed December 2002	Lead bricks are being stored for future use in decontamination and decommissioning activities. Data gap plan: Included in the assessment report. Starting negotiations: NA	None
Fluor Hanford, Inc., Central Plateau Project	333 Building	333	Miscellaneous equipment, piping, and ductwork	Miscellaneous equipment, piping, and ductwork. Materials will be evaluated in the future.	DOE assessment: 1 st quarter CY 2003	Potential MW disposition will be performed in accordance with Tri-Party Agreement milestone M-094-00, Complete Disposition of 300 Area Surplus Facilities (due 9/30/2018). Data gap plan: 1st quarter CY 2004 Starting negotiations: Completed during River Corridor negotiations.	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Central Plateau Project	3708	3708	Solid obsolete laboratory equipment	None	DOE assessment: 2 nd quarter CY 2003	Potential MW disposition will be performed in accordance with proposed TPA Change Control Form M-094-01-01, Milestone M-94-00. Data gap plan: 2 nd quarter CY 2004 Starting negotiations: Completed (see 100 Area and 300 Areas waste sites and facilities cleanup milestones)	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	T Plant Canyon, RR Tunnel, Head-end	221-T	For process cell inventory refer to "T Plant Cell Investigation Phase II Report," HNF-8812, as amended. Examples of inventory are jumpers, tanks, pumps, pump racks, centrifuges, fuel racks, fuel canisters, and agitators.	Items having the potential for reuse, including cover blocks, lead shielding (including portable lead walls), hand tools and tool boxes, metal ramp, chokers and slings, hoists, railroad ties, portable fences, cutters (e.g., jaws), portable pumps and hoses, impact wrenches, spill pallets, HEPA vacuums, HEPA filter and duct work, torch cart and welding cart, work bench, portable exhausters, aqueous make-up tanks, drum crusher, plasma arc cutter.	DOE assessment: 3 rd quarter CY 2005	As of December 31, 2002, 13 sections of the canyon deck had been cleaned off. Process Cells 3-L, 10-L (this cell was cleaned out in CY 2001), 13-L and 15-L have been cleaned out (e.g., removal of equipment, debris, etc.) to accommodate K-Basin Sludge storage equipment. K Basin Sludge storage equipment was installed in these process cells in CY 2002. In addition, Process Cells 8-R, 9-L, 14-R, and 16-R have been cleaned out (e.g., removal of equipment, debris, etc.) to support future missions. Process Cells 7-L, 13-R, and 17-L are permitted as a containment building (40 CFR 265, Subpart DD). Data gap plan: 3 rd quarter CY 2006 Starting negotiations: Completed. These activities have been discussed with Ecology during the T Plant Complex Dangerous Waste Permit Application Part A and Part B negotiations.	M-091-020, T Plant Ready to Receive First Canister of Spent Nuclear Fuel Floor and Pit Sludge, December 31, 2002. M-091-022, T Plant Ready to Receive Canister and Fuel Wash Sludge from K Basins, February 29, 2004.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	T Plant Canyon, Cell 11-L	221-T	Tank in Cell 11-L. The cell 11-L tank contains approximately 500 gallons of a green liquid and saltcake mixture that will be designated as F001-F005, D002, D006, D007, D008, and D010 when removed from the tank.	None	DOE assessment: 3 rd quarter CY 2005	Cell 11-L will be dispositioned along with the other RCRA-past practice process cells in the T Plant canyon. Data gap plan: 3 rd quarter CY 2006 Starting negotiations: Completed. These activities have been discussed with Ecology during the T Plant Complex Dangerous Waste Permit Application Part A and Part B negotiations.	Any commitment date will be dependent on the outcome of the Canyon Disposition Initiative.
Fluor Hanford, Inc., Waste Management Project	T Plant Complex IMUSTs	292-TK-1 and 292-TK-2	292-TK-1 and 292-TK-2 consist of two stainless steel 55-gallon drums encased in concrete. These units contained a mixture of irradiated fuel and nitric acid. The solutions in the tanks were then neutralized with molar equivalents of sodium hydroxide.	None	DOE assessment: 3 rd quarter CY 2005	This WIDS site will be addressed as part of the CERCLA remediation activity. Data gap plan: 3 rd quarter CY 2006 Starting negotiations: TBD	Tanks are part of CERCLA remediation process, scheduled for completion of RI/FS process by Dec. 2008. Prioritization discussions have taken place (4/23/01).

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	Waste Neutralization Facility (340-Vault Tanks, Decon. Room, Control Room, Records, and Truck Dock)	340	340 Vault tank heels and clean out residues and associated equipment (valves, piping, pumps, light fixtures) may designate as MW.	None	DOE assessment: 4 th quarter CY 2003	Potential MW disposition will be performed in accordance with Tri-Party Agreement milestone M-094-00, Complete Disposition of 300 Area Surplus Facilities (due 9/30/2018). Data gap plan: 4 th quarter CY 2004 Starting negotiations: Completed as part of the River Corridor negotiations	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.
Fluor Hanford, Inc., Waste Management Project	340-A Above Ground Storage Tanks	340A	340-A Tanks clean out residues and associated equipment (valves, piping, pumps, light fixtures) may designate as MW.	None	DOE assessment: 4 th quarter CY 2003	Potential MW disposition will be performed in accordance with Tri-Party Agreement Milestone M-094-00, Complete Disposition of 300 Area Surplus Facilities (due 9/30/2018). Data gap plan: 4 th quarter CY 2004 Starting negotiations: Negotiations completed as part of the River Corridor Project	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	Waste load-out bldg.	340B	Process piping and ancillary equipment clean out residues may designate as MW.	None	DOE assessment: 4 th quarter CY 2003	Potential MW disposition will be performed in accordance Tri-Party Agreement Milestone M-094-00, Complete Disposition of 300 Area Surplus Facilities (due 9/30/2018) Data gap plan: 4 th quarter CY 2004 Starting negotiations: Completed during River Corridor negotiations	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.
Fluor Hanford, Inc., Waste Management Project	300-RLWS	RLWS	Isolated radioactive liquid waste sewer piping and ancillary equipment residues may designate as MW.	None	DOE assessment: 4 th quarter CY 2003	Potential MW disposition will be performed in accordance with M-016-00, Complete All Interim 300 Area Remedial Actions to Include Confirmatory Sampling of all Candidate Sites in the 200-FF-2 ROD, (due 09/30/2018) Data gap plan: 4 th quarter CY 2004 Starting negotiations: Completed as part of the River Corridor negotiations.	The schedule information in Column G is subject to change in accordance with Section 12.0, <i>Changes to the Agreement</i> , of the Tri-Party Agreement Action Plan.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Fluor Hanford, Inc., Waste Management Project	242-A Evaporator	242A	None	Ion-exchange column(s)	DOE assessment: Completed 4 th quarter CY 2000	The three ion-exchange columns are scheduled to be removed and disposed during CY03 as part of the 242-A Evaporator Life Extension Upgrades. Data gap plan: Not applicable. Starting negotiations: Not applicable.	None
Battelle Memorial Institute, Pacific Northwest National	Radiochemical Processing Laboratory	325	Tank system formerly used for product materials subsequently used as feedstock for research projects. Tanks have been drained and flushed, but remain in place.	Hot cells, hoods, and gloveboxes used for radioactive materials and waste analysis and research (reused as needed for new or expanded research activities)	DOE assessment: Completed 4 th quarter CY 2001	Data gap plan: Completed 4 th quarter CY 2002 Starting negotiations: NA (no data gaps identified)	Part of an active facility; no special hazards known.
CH2M HILL, Hanford Group, Inc., Tank Farms	701-A Ventilation Building	241-A-701	Mechanical equipment, e.g., HEPA filters, exhauster, etc.	None	DOE Assessment: 4 th quarter CY 2003	Data gap plan: 4 th quarter CY 2004 Starting negotiations: TBD	None
CH2M HILL, Hanford Group, Inc., Tank Farms	Double-Shell Tank Farms	241-AN, AW, AP, AY, AZ, SY	Contaminated unusable equipment, e.g., ductwork, exhausters, piping, etc.	None	DOE Assessments: Continuing	Data gap plan: The equipment will be handled in accordance with the management procedure. Starting negotiations: NA. Equipment will be taken care of on a continuous basis.	None

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (in standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
CH2M HILL, Hanford Group, Inc., Tank Farms	Single-Shell Tank Farms	241-A, AX, B, BX, BY, C, T, TX, TY, S, SX, U, 244-AR, 244-CR	Contaminated unusable equipment, e.g., ductwork, exhausters, piping, ion exchange columns, etc.	None	DOE Assessments: Continuing	Data gap plan: The equipment will be handled per the management procedure. Starting negotiations: NA Equipment will be taken care of on a continuous basis.	None
CH2M HILL, Hanford Group, Inc., Tank Farms	Evaporators	242-S, T	Liquids/solids in process tanks and piping, debris	None	DOE Assessment: 3 rd quarter, CY 2004	242-T and 242-S Evaporators are both forecast to be excessed and will go through the LCAM process. Data gap plan: 3 rd quarter CY 2005 Starting negotiations: FY 2005.	None
Bechtel Hanford, Inc., Environmental Restoration	100-B Reactor Facilities	105-B, 111-B, 116-B, 119-B, 1608-B	Miscellaneous contaminated material remains in the facility.	None	DOE assessment: 2 nd quarter CY 2004. Assessment excludes reactor.	Data gap plan: 2 nd quarter CY 2005 Starting negotiations: Approval of Tri-Party Agreement Change Request M-093-01-02 completed Tri-Party Agreement Milestone M-093-14, Initiate Negotiations for the Remaining Surplus Reactor Disposition Schedules.	The reactor is a key facility under Section 8.0 of the Tri-Party Agreement.

Table C-2. Potential Mixed Waste.

A	B	C	D	E	F	G	H
Company, project	Common name or description	Facility number	Solid waste, with potential for mixed waste, not integral to the building or structure (no use)	Materials, with potential to become solid waste and subsequently mixed waste (In standby, possible use)	DOE assessment of storage methods	Schedule information	Integrating factors
Bechtel Hanford, Inc., Environmental Restoration	100-N Lead Storage Area	1714-N	None	Lead sheeting and bricks, lead lined containers, and a lead lined survey booth with some radioactive contamination. Material is in standby for decommissioning of N Reactor Areas.	DOE assessment: 2 nd quarter CY 2004.	Data gap plan: 2 nd quarter CY 2005 Starting negotiations: Completed as a part of River Corridor negotiations. Tri-Party Agreement Milestone M-093-20, Complete 105-N Reactor Interim Safe Storage, is due 09/30/2012.	The 1714-N facility is under long term surveillance and maintenance as defined in Section 8.0 of the Tri-Party Agreement. Tri-Party Agreement Milestone M-093-00 addresses final disposition of all 100 Area surplus reactor buildings.
Bechtel Hanford, Inc., Environmental Restoration	100-KE and KW Reactor Facilities	167-K, 182-K, 183-K, 105-KE, 110-KE, 115-KE, 116-KE, 117-KE, 118-KE-2, 150-KE, 166-KE, 1713-KER, 105-KW, 110-KW, 115-KW, 116-KW, 117-KW, 118-KW-2, 119-KW, 150-KW, 165-KW, 166-KW, 181-KW, 183-KW, 190-KW	Miscellaneous contaminated material in the facility is being managed as part of surveillance and maintenance activities	None	DOE assessment: 2 nd quarter CY 2004. Assessment excludes reactor.	Waste will be generated as part of the ISS activities. Data gap plan: 2 nd quarter CY 2005 Starting negotiations: Completed as a part of River Corridor negotiations. Tri-Party Agreement Milestone M-093-20, Complete 105-N Reactor Interim Safe Storage, is due 09/30/2012.	The reactor is a key facility under Section 8.0 of the Tri-Party Agreement. Tri-Party Agreement Milestones M-93-21-T01 and M-93-22-T01 address ISS of 105-KW and 105-KE respectively.

Table C-3. Historical List of Materials Deleted from Potential Mixed Waste Table.

Common Name or Description	Facility Number	Last Calendar Year Reported in Table C-2	"Stuff"/Material Deleted	Reason for Deletion
Heavy Equipment Staging Area	2711E	2002	Miscellaneous equipment	No material left at this location, as it was shipped offsite for reuse.
Rad. Storage Area	3711	2001	Lead bricks	Shipped 9/26/01 to Duratek Inc. in Memphis, TN for decontamination/lead casting
Waste Storage Building	2724WB	2001	Radiators (from motor vehicles)	Shipped 9/26/01 to Duratek, Inc in Memphis, TN for decontamination/metal melt
Plutonium Finishing Plant	234-5Z	2001	E1: Laboratory Reagents E2: Archive Laboratory Samples E3: PR cans that have lead liners. E4: Low-grade SNM solutions not run through the precipitation process, but with potential to become solid waste (e.g. the direct discard process).	E1: These chemicals are in use within the laboratory. E2: Samples are archived in accordance with sample exclusion. E3 and E4: Material is now included on location-specific data sheets. Note: Only the contents noted were removed from Table C-2. Table C-2 still contains other potential waste in this location.
MW Treatment and Storage Tanks	241-Z	2001	Tank D-9, Treatment chemicals	Tank D9 is in use to mix treatment chemicals. Treatment chemicals are in use in transferring waste from the Plutonium Finishing Plant to Double Shell Tanks. Note: Only the contents noted were removed from Table C-2. Table C-2 still contains other potential waste in this location.
Waste Handling Facility	219-S	2001	Tank 103 and heel content	Combined with existing location-specific data sheet for the 219-S WHF.
300-RRLWS	RRLWS	2001	Retired radioactive liquid waste sewer piping and ancillary structures might designate as MW.	Below-ground structure: Does not meet reporting criteria for Potential Mixed Waste Table.
2706-T Conex Box	Conex box CC2W0136 and CC2W137	2001	Various decontamination equipment, spill pallets, shipping coolers, carts, hoses, storage cabinets, and sampling equipment.	These conex boxes were opened and the contents visually verified and photographs taken. The photographs clearly demonstrate that the equipment is readily accessible. The equipment will be used in the future as part of the 2706-T Complex operations (e.g., decontamination, sampling, etc.). The photographs are maintained in the T Plant Complex operating record.
224-T (Includes TRUSAF)	224-T	2002	Liquid in the sumps and the deep cell. Two cardboard boxes in the cells.	Determined to not have a hazardous component, and therefore not a mixed waste. Note: Only the contents noted were removed from Table C-2. Table C-2 still contains other potential waste in this location.
C855 (CAT) Substation	252U	2002	Transformer	The transformer has been designated and found not to have a dangerous component. Therefore, it is not mixed waste.
324	324	2002	Shielded glovebox. Potential mixed waste residue. Former Silver List Item 11.8	Glovebox was included in the 4th quarter CY 2002 LDR storage assessment and determined to contain only floor sweeps.
200 ETF	2025E	2001	Thin film dryer rotor	Rotor was rebuilt for reuse at the 200 ETF.

Table C-3. Historical List of Materials Deleted from Potential Mixed Waste Table.

Common Name or Description	Facility Number	Last Calendar Year Reported in Table C-2	"Stuff"/Material Deleted	Reason for Deletion
100 K Basins	105-KW	2001	Lead bricks, sheets	The lead has been declared CERCLA waste. A location-specific data sheet was created.
Environmental Sciences Laboratory	3720	2002	Laboratory equipment, hoods and gloveboxes used for radioactive materials and waste analysis and research (reused as needed for new or expanded research activities)	Onsite inspection revealed that contaminated equipment is in use. Hoods and gloveboxes listed are part of the structure of the building.
100 C Reactor Facility	105-C, 118-C-4	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage.
100 D/DR Reactor Facility	105-D, 105-DR, 117-DR, 190-DR	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage. Waste forecasts are included in the 5-year projections on the location-specific data sheets.
100 F Reactor Facility	105-F	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage. Waste forecasts are included in the 5-year projections on the location-specific data sheets.
100 H Reactor Facility	105-H, 1720-HA, 1713-H	2001	Reactor core, and equipment remaining in the facility.	Reactor core is part of the structure of the building. Mixed waste is removed during the reactor interim safe storage. Waste forecasts are included in the 5-year projections on the location-specific data sheets.
100-N Reactor Facilities	See Table 1, S&M Plan for the 100-N Deactivated Facilities, DOE/RL-98-64, Rev. 0	2001	Some remaining hazardous materials consisting of activated materials and fission products contained within the reactor block. (Further details are provided in DOE/RL-98-64, Rev. 0, S&M Plan for the 100-N Area Deactivated Facilities)	Reactor core is part of the structure of the building. Mixed waste was removed during the reactor decommissioning.
REDOX	276-S-141/142	2001	Tanks and heel content	A treatability group was developed to account for the 276-S-141/142 tanks. (See Appendix B).
Semi Works	241-CX-70, 241-CX-71, 241-CX-72, 276-C	2001	Tanks and heel content	A treatability group was developed to account for the 241-CX tanks. (See Appendix B).

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ACRONYMS

ATG	Allied Technology Group, Inc.
BAT	best available technology
BDAT	best demonstrated available technology
CERCLA	<i>Comprehensive Environmental Response, Compensation, and Liability Act of 1980</i>
CDD	critical design document
CFR	<i>Code of Federal Regulations</i>
CH	contact handled
CWC	Central Waste Complex
CY	calendar year
D&D	decontamination and decommissioning
DOE	U. S. Department of Energy
DOE-ORP	U.S. Department of Energy, Office of River Protection
DOE-RL	U.S. Department of Energy, Richland Operations Office
DST	double-shell tank
DU	depleted uranium
EA	environmental assessment
Ecology	Washington State Department of Ecology
EIS	environmental impact statement
EPA	U. S. Environmental Protection Agency
ERDF	Environmental Restoration Disposal Facility
ETF	200 Areas Effluent Treatment Facility
F&R	functions and requirements
FDC	functional design criteria
FFCA	<i>Federal Facilities Compliance Act of 1992</i>
FY	fiscal year
GASVIT	gasification-vitrification
HL	high level
HLW	high-level waste
HSTF	Hexone Storage and Treatment Facility
HWTU	Hazardous Waste Treatment Unit
IHLW	immobilized high-level waste
ILAW	immobilized low-activity waste
INEEL	Idaho National Engineering and Environmental Laboratory
LAW	low activity waste
LDR	land disposal restrictions
LERF	Liquid Effluent Retention Facility
LLBG	Low-Level Burial Grounds

ACRONYMS (cont)

LLMW	low-level mixed waste (same as MLLW)
LLW	low-level waste
MLLW	mixed low-level waste
MW	mixed waste
NA	not applicable
NDA	nondestructive assay
NDE	nondestructive examination
NPL	National Priorities List
O/C	organic/carbonaceous
OU	operable unit
PCB	polychlorinated biphenyl
PEIS	programmatic environmental impact statement
PFP	Plutonium Finishing Plant
pH	negative logarithm of the hydrogen-ion concentration
PMP	project management plan
PNNL	Pacific Northwest National Laboratory
PSTF	Purgewater Storage and Treatment Facility
PUREX	plutonium-uranium extraction
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
REC	radiochemical engineering cell
RH	remote handled
RI/FS	remedial investigation/feasibility study
RMERC	
ROD	record of decision
RPP	River Protection Project
S&M	surveillance and maintenance
SALDS	State-Approved Land Disposal Site
SCW	special-case waste
SEIS	supplemental environmental impact statement
SRS	Savannah River Site
SST	single-shell tank
SWIFT	Solid Waste Integrated Forecast Technical (Report)
TBD	to be determined
Tri-Party Agreement (TPA)	<i>Hanford Federal Facility Agreement and Consent Order</i>
TRU	transuranic (waste)
TRUM	transuranic mixed (waste)
TSD	treatment, storage, and/or disposal
TWRS	Tank Waste Remediation System
UHC	underlying hazardous constituent
UV	ultraviolet

WAC	<i>Washington Administrative Code</i>
WESF	Waste Encapsulation and Storage Facility
WIPP	Waste Isolation Pilot Plant
WMA	Waste Management Area
WRAP	Waste Receiving and Processing Facility
WTP	Waste Treatment Plant

METRIC CONVERSION CHART

Into metric units

Out of metric units

If you know	Multiply by	To get	If you know	Multiply by	To get
Length			Length		
inches	25.40	millimeters	millimeters	0.03937	inches
inches	2.54	centimeters	centimeters	0.393701	inches
feet	0.3048	meters	meters	3.28084	feet
yards	0.9144	meters	meters	1.0936	yards
miles (statute)	1.60934	kilometers	kilometers	0.62137	miles (statute)
Area			Area		
square inches	6.4516	square centimeters	square centimeters	0.155	square inches
square feet	0.09290304	square meters	square meters	10.7639	square feet
square yards	0.8361274	square meters	square meters	1.19599	square yards
square miles	2.59	square kilometers	square kilometers	0.386102	square miles
acres	0.404687	hectares	hectares	2.47104	acres
Mass (weight)			Mass (weight)		
ounces (avoir)	28.34952	grams	grams	0.035274	ounces (avoir)
pounds	0.45359237	kilograms	kilograms	2.204623	pounds (avoir)
tons (short)	0.9071847	tons (metric)	tons (metric)	1.1023	tons (short)
Volume			Volume		
ounces (U.S., liquid)	29.57353	milliliters	milliliters	0.033814	ounces (U.S., liquid)
quarts (U.S., liquid)	0.9463529	liters	liters	1.0567	quarts (U.S., liquid)
gallons (U.S., liquid)	3.7854	liters	liters	0.26417	gallons (U.S., liquid)
cubic feet	0.02831685	cubic meters	cubic meters	35.3147	cubic feet
cubic yards	0.7645549	cubic meters	cubic meters	1.308	cubic yards
Temperature			Temperature		
Fahrenheit	subtract 32 then multiply by 5/9ths	Celsius	Celsius	multiply by 9/5ths, then add 32	Fahrenheit
Energy			Energy		
kilowatt hour	3,412	British thermal unit	British thermal unit	0.000293	kilowatt hour
kilowatt	0.94782	British thermal unit per second	British thermal unit per second	1.055	kilowatt
Force/Pressure			Force/Pressure		
pounds (force) per square inch	6.894757	kilopascals	kilopascals	0.14504	pounds per square inch

06/2001

Source: *Engineering Unit Conversions*, M. R. Lindeburg, PE., Third Ed., 1993, Professional Publications, Inc., Belmont, California.

**CALENDAR YEAR 2002 HANFORD SITE MIXED WASTE LAND
DISPOSAL RESTRICTIONS STORAGE REPORT
VOLUME 2, CHARACTERIZATION AND TREATMENT PLAN**

1.0 INTRODUCTION

Volume 2 of the Hanford Site LDR report discusses characterization, treatment and disposal actions, and plans for managing mixed waste on the Hanford Site. Waste characterization and treatment activities on the Hanford Site continue to increase as waste management facilities are completed and funded to process and/or treat the waste. This chapter briefly describes the development process for the treatment plan and identifies other reports that can be consulted for additional information concerning the Hanford Site and expected waste treatment activities. This report has been organized to be similar to the site treatment plans prepared by other U.S. Department of Energy (DOE) sites governed by the *Federal Facility Compliance Act (FFCA) of 1992* requirements.

1.1 SITE TREATMENT PLAN ACTIVITIES

The overall information needs and relationships for the report are shown in Figure 1-1. Initial activities include identifying waste streams and available and needed characterization data associated with the streams, and defining the regulatory treatment requirements. The treatment requirements define the treatment categories and technologies needed for each waste type. The physical, chemical, and radiological characteristics of the waste determine the treatability group in which the waste is included. Hanford Site treatment, storage, and/or disposal (TSD) units and available commercial processes for treating the mixed waste also are identified along with their capabilities. Knowing the processes for the treatment capabilities and the treatment requirements for each treatability group, each treatability group can be assigned to either existing treatment capacity or to future processes. For the existing processes, Hanford Site schedules can be determined based on anticipated budgets and overall onsite needs. These schedules confirm the need for operations funding. For the future processes, the waste that requires further characterization determines the types of technology needs and, subsequently, the requirements and capabilities. The future processes will be scheduled and operated as budgets allow.

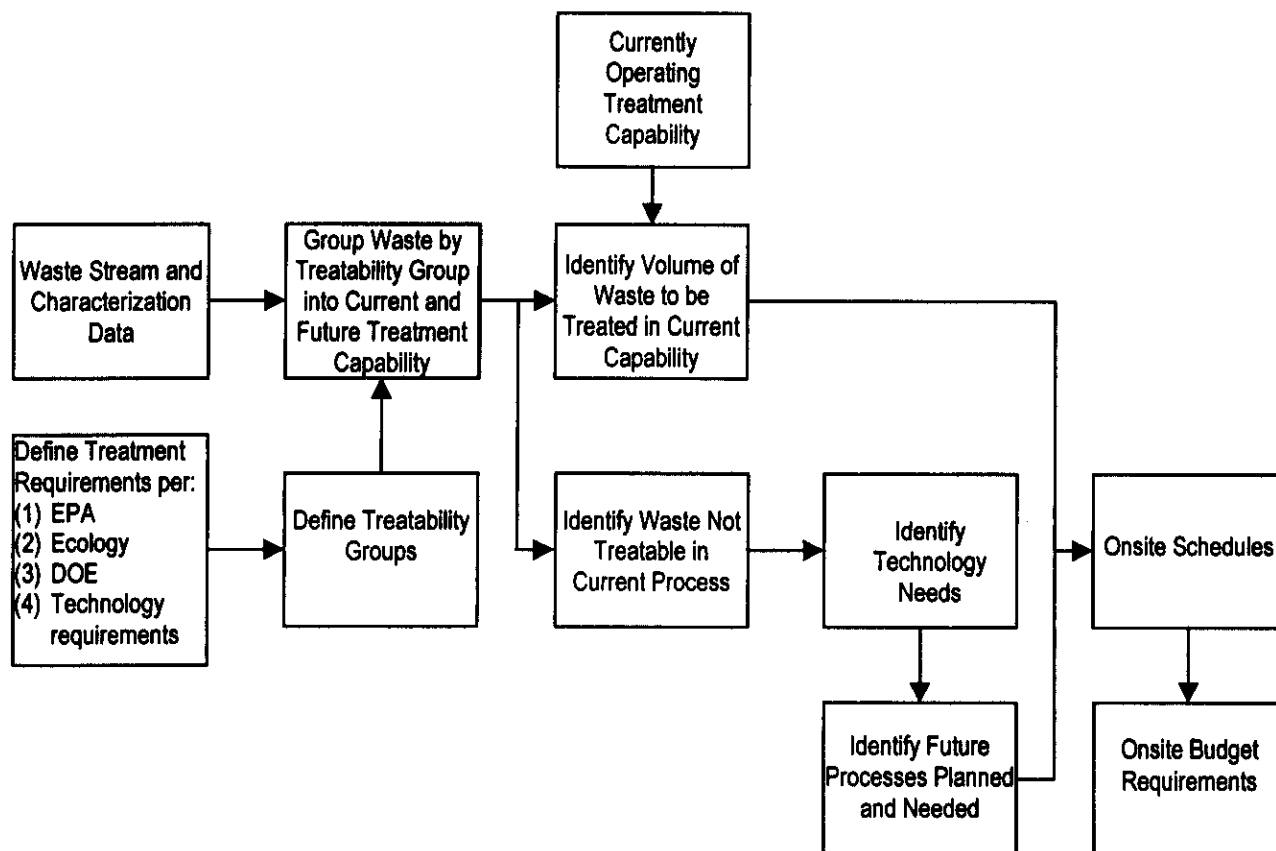


Figure 1-1. Outline of Activities to Complete Treatment Plan.

1.2 RELATIONSHIP TO OTHER MAJOR DOE AND HANFORD SITE ACTIVITIES AND DOCUMENTS

The characterization and treatment plan is influenced by numerous Hanford Site activities. Some of the activities and their resulting reports are identified in the following reports. Additional details can be obtained from the referenced reports. Some of the reports provide additional information on waste stream characterization and evaluation of alternatives, and identify the likely effects of managing the mixed waste on the Hanford Site. These reports include the following:

- **Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement)** (Ecology et al. 2002). This report (Volume 1 and Volume 2) is submitted pursuant to Tri-Party Agreement Milestone M-026-01M. The Tri-Party Agreement also contains many treatment characterization milestones.
- **Final Environmental Impact Statement for the Tank Waste Remediation System** (DOE/EIS-0189). This environmental impact statement (EIS) and its associated record of decision (ROD) provide details on the alternative treatments for HLW.
- **Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Wastes** (DOE/EIS-0200-F). This EIS and its associated RODs provide the overall evaluation of treatment and disposal alternatives for all the DOE sites.

- **Hanford Site Solid (Radioactive and Hazardous) Waste Program Environmental Impact Statement** is being prepared. This report is expected to be issued in 2003.
- **Solid Waste Integrated Forecast Technical Report (SWIFT)**. This program provides the waste generation volume forecast.
- ***Final Hanford Comprehensive Land-Use Plan Environmental Impact Statement*** (DOE/EIS-0222-F). This EIS and its associated RODs identify areas on the Hanford Site used for managing and disposing of mixed waste.

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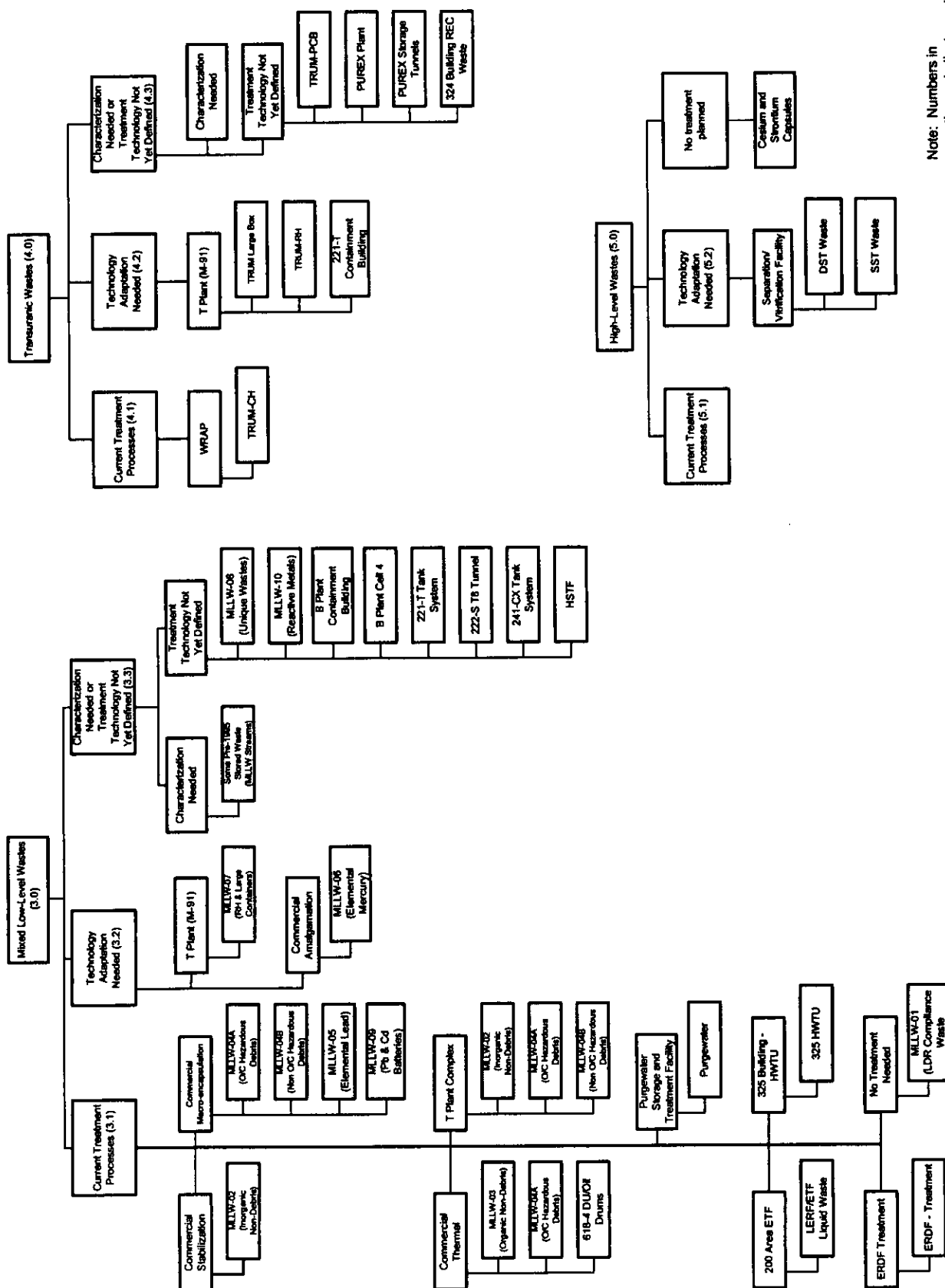
2.0 WASTE STREAMS AND TREATABILITY GROUPS

Each waste treatability group is or will be assigned to a specific treatment process. These assignments are based on the treatment and/or characterization requirements of the treatability group and the treatment process capability. For a discussion on the organization of treatability groups, refer to Volume 1 Appendix B. Figure 2-1 summarizes the layout of the treatability groups and identifies where each group is expected to be treated. The upper levels of the chart show the waste type [e.g., mixed low-level waste (MLLW)] and whether or not the treatment capacity exists. The information is presented first for existing processes, then for planned processes, and finally for treatability groups for which further characterization is required to determine the treatment process or for which a treatment technology has not been selected.

Figure 2-1 also indicates the characterization needs for the waste. Waste to be treated under existing processes typically is characterized sufficiently to designate the waste and to ensure that the waste is categorized correctly and safely stored. Any further characterization of this waste that must be done is planned as part of the treatment preparation. Waste to be treated under planned processes and processes not yet defined is characterized sufficiently to know the designation and is safely stored. Because treatment is not planned for waste requiring processes not yet defined, additional characterization might occur as part of the design and development of the proposed treatment units.

The schedule and means for reporting waste characterization data are outlined in Section 9.6 of the Tri-Party Agreement (Ecology et al. 2001). This section states that DOE will make available to Washington State Department of Ecology (Ecology) and the U. S. Environmental Protection Agency (EPA) all relevant electronic data and databases. All validated data are entered into the selected database in accordance with the data delivery schedule in the Tri-Party Agreement, Section 9.6.6.

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Note: Numbers in parentheses indicate sections in this volume of the report.

Figure 2-1. Correlation Between Treatability Groups and Treatment Facilities.

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3.0 MIXED LOW-LEVEL WASTE STREAMS

Disposition maps shown in Figures 3-1 and 3-2 present an overview of the planned treatment and disposal of MLLW streams. Figure 3-1 shows the major waste treatability groups and the associated treatment processes (Section 3.1) with existing capabilities. Figure 3-2 shows a flowsheet for the treatability groups contained in the adaptation-needed category (Section 3.2). Because the treatment plan for the remaining MLLW treatability groups is not well developed, a flowsheet for these groups is not included. As noted in Figure 3-1, some treatability groups (MLLW-01, -02, -04A, and -04B) could be treated in more than one location. These treatability groups also are shown in multiple locations in Figure 2-1.

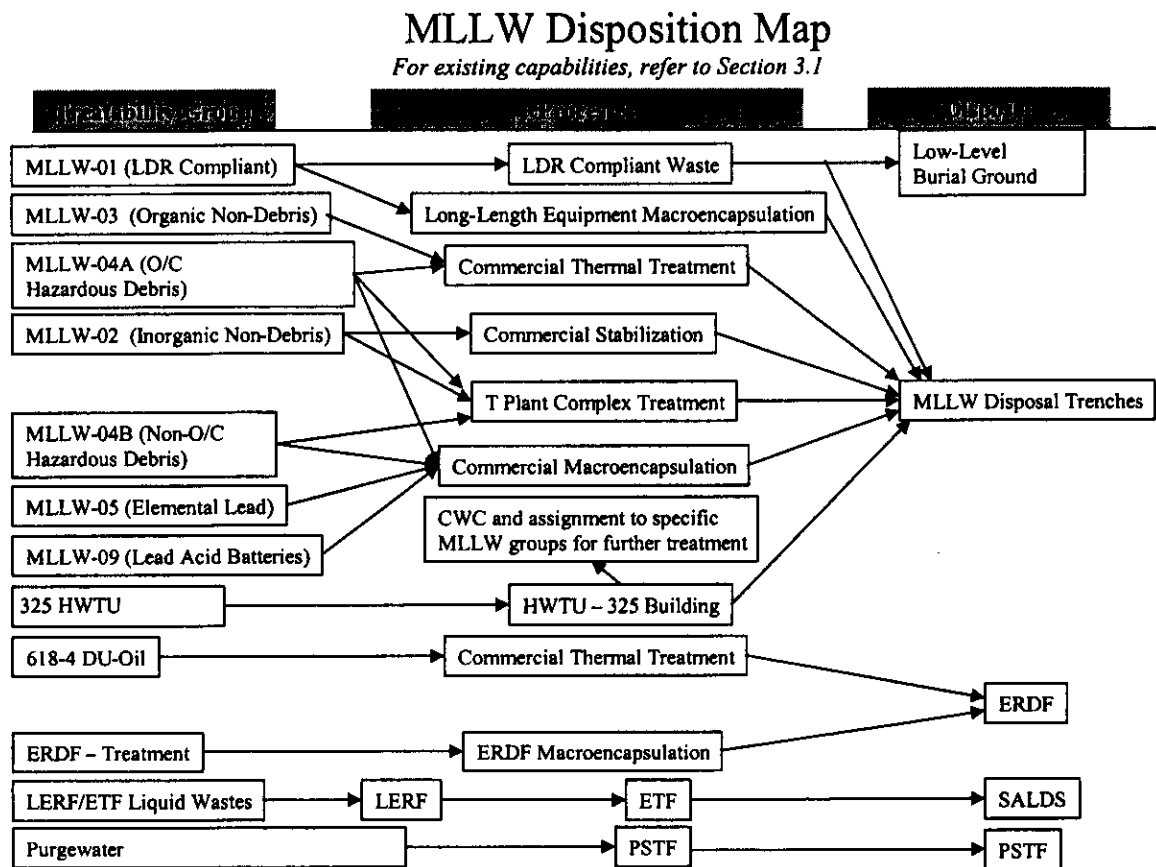


Figure 3-1. Site Disposition Map for Mixed Low-Level Waste.

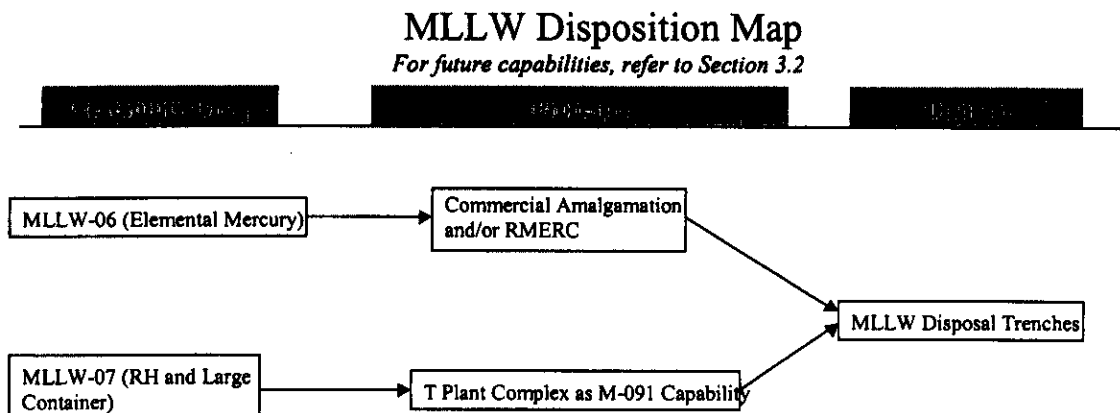


Figure 3-2. Disposition Map for Treatability Groups Needing Facilities Adapted to Allow Waste Treatment.

3.1 MIXED WASTE STREAMS FOR WHICH TREATMENT TECHNOLOGY EXISTS

This section generally describes each treatment process and provides information concerning the processes identified in Figure 3-1. This section also provides information on which waste treatability groups will be treated by each process, including the volume of waste treated during the past year and the anticipated volume of waste to be treated in Calendar Years (CYs) 2003 through 2007.

In reviewing the tables in this section for each treatment process, it becomes apparent that, in many of the tables, the projected volume of MLLW to be treated is related directly to the TPA milestone M-091 dispute resolution. Examples of the waste streams for which an M-091-series milestone might be established to apply are the following: MLLW-01, MLLW-02, MLLW-03, MLLW-04A, MLLW-04B, MLLW-05, MLLW-06, MLLW-07, MLLW-08, MLLW-09, MLLW-10, and 325 HWTU.

The planning baseline indicates that sufficient capacity exists or will exist, to treat this volume of MLLW using the identified treatment process and alternatives: commercial stabilization, commercial thermal treatment, T Plant Complex, Broad Spectrum contracts, etc. However, the exact distribution of treatment among these treatment processes has not been finalized. This allows the Hanford Site to optimize the use of funds (minimize unit costs), to react to changing conditions and capabilities of the treatment processes, and to use emerging national treatment contracts.

Through the use of Broad Spectrum contracts, DOE waste generators have the opportunity to participate in this nationwide privatization initiative for treating and disposing of legacy and currently generated MLLW. The Broad Spectrum contracts have been awarded to Materials and Energy Corporation (Perma-Fix), Waste Control Specialists, and Allied Technology Group, Inc.(ATG). These Broad Spectrum contracts give the Hanford Site several options with unique capabilities for treating a wide range of MLLW streams.

3.1.1 Commercial Stabilization

MLLW that does not have a significant organic content and is not debris waste is expected to be stabilized. This stabilization processing will be conducted in commercial facilities under contract to DOE. Waste currently in storage has been characterized sufficiently for proper designation and storage

on the Hanford Site. Before waste treatment, the existing Treatment Storage and/or Disposal (TSD) record information will be reviewed and corrections will be made as necessary based on existing knowledge.

Stabilization is a treatment technology for non-debris waste that contains heavy metals or other specific hazardous components. Most non-debris waste will be solid, but stabilization could be used to neutralize and solidify some liquid waste. The objective of stabilization is to immobilize the hazardous component through fixation into low-solubility materials, and by encapsulation to reduce the potential for future releases. Usually, stabilization is accomplished by mixing the waste with Portland cement or pozzolanic materials at a preselected ratio, but stabilization also can include mixing with reducing agents or polymer materials. This treatment prepares the waste to meet the disposal requirements. Existing commercial treatment contracts do not cover all the waste types nor all forecast volumes, so additional contracts are expected to be placed with commercial treatment contractors. Table 3-1 contains information on the commercial stabilization process, using ATG as a representative example for regulatory status information.

Table 3-1. Commercial Stabilization Process Summary.

Type of information	Information
Treatability group that the process is expected to treat	MLLW-02, Inorganic Non-Debris.
Tri-Party Agreement milestones related to this treatability group	Discussed as part of M-091 TPA dispute.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution and will include working off the backlog CWC inventory.
Treatment capacity	Sufficient capacity exists to treat this volume of MLLW using the identified treatment processes and alternatives (commercial stabilization, T Plant Complex, Broad Spectrum contracts, etc.)
ATG regulatory status information:	
- Date of RCRA permit	1999.
- Date treatment contract established	1995.
- Date facility construction started	1999.
- Date system testing started	1999.
- Date operations begin	1999.
- Current regulatory status	Permitted, some operations temporarily suspended.
Budget status for continued operations	Funding has been requested in the Fiscal Year (FY) 2003 through FY 2004 budgets and currently is planned to be requested through the FY 2008.
Planned completion of treatment using this process	The baseline plan anticipates that the majority of this treatability group will be processed using commercial facilities. Stored inventories are expected to decrease with anticipated processing rates. Because waste generation is expected to continue through the life of Hanford Site cleanup operations, continued treatment will be needed into the foreseeable future.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility.	The T Plant Complex and the 325 HWTU also have stabilization capability and could be used to supplement commercial capacity.

Table 3-1. Commercial Stabilization Process Summary.

Type of information	Information
ATG	Allied Technology Group, Inc.
CY	calendar year
FY	fiscal year
HWTU	Hazardous Waste Treatment Unit
MLLW	mixed low-level waste
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>

3.1.2 Commercial Macroencapsulation

Macroencapsulation consists of applying a surface coating of polymeric organics or using a jacket of inert inorganic materials (e.g., cement) to substantially reduce surface exposure to potential leaching media. During CY 2002, waste was treated under commercial contracts near the Hanford Site. Existing contracts do not cover all the waste streams, so it is expected that some waste will be treated on the Hanford Site, or that additional commercial contracts will be awarded competitively as needed to meet future needs. The processes potentially available near the Hanford Site are described in an Environmental Assessment (EA) for non-thermal treatment (DOE/EA-1189). For macroencapsulation of hazardous debris under treatability groups MLLW-04A and MLLW-04B, pretreatment processes can include sorting, cutting/shearing, compaction, and supercompaction. For MLLW-05, Elemental Lead, decontaminated lead can be recycled or reused. Lead waste can be encapsulated by a cement jacket according to the definition of MACRO in 40 CFR 268.42. For MLLW-09, Lead-Acid and Cadmium Batteries, EPA recently promulgated a new treatment standard so the MLLW can be treated according to the debris macroencapsulation standards in 40 CFR 268.45. When Ecology adopts this treatment standard, the Hanford Site will be able to treat and dispose of MLLW-09 waste. Table 3-2 contains information concerning the commercial macroencapsulation process, using ATG as a representative example for regulatory status information.

Macroencapsulation currently is being used to treat hazardous debris containing organic/carbonaceous (O/C) constituents that would otherwise require thermal treatment. The Hanford Site has been allowed to treat, and plans to continue to treat, the MLLW-04A O/C Hazardous debris using macroencapsulation in accordance with a site-wide 1,609 kilometers (1,000-mile) inapplicability certification for the Washington State O/C LDR in accordance with WAC 173-303-140(4)(d)(iii).

Other immobilization treatment technologies could be used to treat some of the Hanford Site MLLW debris.

Table 3-2. Commercial Macroencapsulation Process Summary.

Type of information	Information
Treatability groups that the process is expected to treat	MLLW-04A, Organic/Carbonaceous (O/C) Hazardous Debris; MLLW-04B, Non-O/C Hazardous Debris; MLLW-05, Elemental Lead; and MLLW-09, Lead-Acid and Cadmium Batteries.
Tri-Party Agreement milestones related to these treatability groups	Discussed as part of the M-091 TPA dispute.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution and will include working off the backlog CWC inventory.
Treatment capacity	Sufficient capacity exists to treat this volume of MLLW using the identified treatment processes and alternatives (commercial stabilization, commercial thermal treatment, T Plant Complex, Broad Spectrum contracts, etc.).
ATG regulatory status information:	
- Date of RCRA permit application	1999.
- Date treatment contract established	1995.
- Date facility construction started	1999.
- Date system testing started	1999.
- Date operations begin	1999.
- Current regulatory status	Permitted, some operations temporarily suspended. For the treatment and disposal of batteries, DOE is waiting for Ecology to adopt the new federal treatment standard for batteries.
Budget status for continued operations	Funding has been requested in the FY 2003 through FY 2004 budgets and currently is planned to be requested through the FY 2008.
Planned completion of treatment using this facility	The baseline plan anticipates that the majority of these treatability groups will be processed using commercial treatment. Stored inventories are expected to decrease with anticipated processing rates. Because waste generation is expected to continue through the life of the Hanford Site cleanup operations, continued treatment will be needed into the foreseeable future.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility.	The T Plant Complex and the 325 HTWU also have macroencapsulation capability and could be used to supplement commercial facilities. Other commercial facilities also could be used in the future.

ATG	Allied Technology Group, Inc.
CY	calendar year
FY	fiscal year
HTWU	Hazardous Waste Treatment Unit
MLLW	mixed low-level waste
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>

3.1.3 Thermal Treatment of Organics

MLLW containing organic materials will be treated thermally when sufficient capability has been demonstrated for the Hanford Site waste. The material could be debris waste, other solid waste, or liquid waste. Waste currently in storage has been characterized sufficiently for proper designation and storage on the Hanford Site. Before waste treatment, the existing TSD record information will be reviewed and characterization corrections will be made as necessary based on existing acceptable knowledge. The thermal treatment process destroys organic materials by oxidation, combustion, and/or pyrolysis. For this report, future thermal treatment will be assumed to be in a commercial system. Additional commercial processing contracts will be awarded competitively as needed. The thermal treatment system installed at ATG used the gasification-vitrification (GASVIT™) treatment process. Gasification removes the organic materials and vitrification converts the residual solids into a stable leach-resistant glass-like material suitable for disposal. The process and its potential environmental impacts are described in the EA for ATG operations. Pretreatment processes for the GASVIT™ system include sorting and size reduction. The pretreatment process for liquids can include liquid consolidation, liquid treatments (e.g., neutralization), filtration, and ultraviolet (UV) oxidation. The GASVIT™ process includes the necessary offgas cleanup systems that can produce small amounts of secondary waste. Table 3-3 contains information concerning commercial thermal treatment, using ATG as a representative example for regulatory status information.

Table 3-3. Commercial Thermal Treatment Process Summary.

Type of information	Information
Treatability groups the process is expected to treat	MLLW-03, Organic Non-Debris.
Tri-Party Agreement milestones related to this treatability group	TPA Interim Milestone M-091-12A, Complete thermal treatment and disposal of 240 m ³ of waste by 12/31/2004. M-091-12, Complete thermal treatment and disposal of an additional 360 m ³ of waste by 12/31/2005. Additional milestone discussed as part of the M-091 TPA dispute.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution and will include working off the backlog CWC inventory. At least 600 m ³ will be thermal treatment (M-091-12).
Treatment capacity	Treatment capacity is being assessed to thermally treat 600 m ³ of MLLW by 12/31/2005.
ATG regulatory status information:	
- Date of RCRA permit application	1999.
- Date treatment contract established	1995.
- Date facility construction started	1999.
- Date system testing started	2000.
- Date operations began	2001 under pre-demonstration.
- Current regulatory status	Permitted, thermal treatment operations temporarily suspended.
Budget status for continued operations	Funding has been requested in the FY 2003 budget and currently is planned to be requested through the FY 2008. ATG is not expected to process any more thermal waste in FY 2003.

Table 3-3. Commercial Thermal Treatment Process Summary.

Type of information	Information
Planned completion of treatment using this facility	The baseline plan anticipates that the majority of this treatability group will be processed with commercial contracts because other DOE thermal treatment capability is lacking. Stored inventories are expected to decrease with anticipated processing rates. Because waste generation is expected to continue through the life of Hanford Site cleanup operations, continued treatment will be needed into the foreseeable future.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility.	Other treatment technologies will be available for treating this waste stream, although the technologies are not as far along as the ATG GASVIT™ process. Examples include molten salt oxidation, direct chemical oxidation, and thermal desorption under a Broad Spectrum contract.

ATG	Allied Technology Group, Inc.
CY	calendar year
FY	fiscal year
GASVIT	gasification-vitrification
MLLW	mixed low-level waste
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>

3.1.4 Commercial Thermal Treatment of 618-4 DU/Oil Drums Waste

The preferred treatment alternative for the 618-4 DU/Oil Drums waste involves phase separation of the waste, followed by incineration of the liquids and stabilization of the solids. A drum treatment plan is being prepared that will identify contractors to perform the treatment. The 618-4 DU/Oil Drums treatability group consists of waste from uranium machining. Uranium fines and chips can be pyrophoric and were immersed in oil in drums and disposed in the 618-4 Burial Ground. Table 3-4 provides information with respect to the treatment of this waste stream.

Table 3-4. Commercial Comprehensive Environmental Response, Compensation, and Liability Act
Thermal Treatment Summary.

Type of information	Information
Treatability group that the process is expected to treat	618-4 DU/Oil Drums.
Tri-Party Agreement milestones related to this treatability group	M-016-03I, Complete Treatment of Drummed Waste from the 618-F Burial Ground in Accordance with an Approved Remedial Design Report/Remedial Action Work Plan, by TBD.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	120 m ³ .
Treatment capacity	TBD.
Regulatory status information:	
- Date of RCRA permit application	NA.
- Date treatment contract established	NA.
- Date facility construction started	NA.
- Date system testing started	NA.
- Date operations begin	NA.
- Current regulatory status	NA.
Budget status for continued operations	Treatment and disposal of the 618-4 drums are budgeted and scheduled to be performed in FY 2003-2004 in accordance with the Richland Environmental Restoration Project FY 2003-2004 Detailed Work Plan.
Planned completion of treatment using this facility	The baseline plan anticipates that this treatability group will be processed by the end of FY 2004.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility.	Other treatment technologies have been assessed for this waste stream including in situ vitrification.

FY	fiscal year
MLLW	mixed low-level waste
NA	not applicable
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
TBD	<i>to be determined</i>
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order.</i>

3.1.5 T Plant Complex

The commercial stabilization and macroencapsulation treatment could be supplemented or replaced by capability that exists within the T Plant Complex. While the T Plant Complex canyon is being planned for use in treating RH waste (Section 3.2.1), the T Plant Complex canyon also has been used to open, inspect, segregate, and repackage mixed waste. The 2706-T Building within the T Plant Complex is a decontamination area with the capability to open, sample, sort, treat, and repackage boxes and drums of CH mixed waste. Some of the waste planned to go to commercial treatment facilities will be inspected in the 2706-T Building before being shipped offsite for treatment and some waste will be inspected following treatment. Table 3-5 contains information on the T Plant Complex.

Table 3-5. T Plant Complex Treatment Activities Summary.

Type of information	Information
Treatability groups that the process is expected to treat	MLLW-02, Inorganic Non-Debris, and MLLW-04B, and Non-O/C Hazardous Debris.
Tri-Party Agreement milestones related to these treatability groups	Discussed as part of the M-091 TPA dispute.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2006	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution and will include working off the backlog CWC inventory.
Treatment capacity	Permitted capacity is 150 metric tons per day.
Regulatory status information:	
- Date of RCRA permit application	T Plant Complex submitted in 2002 to Ecology
- Date treatment contract established	NA.
- Date facility construction started	1943.
- Date system testing started	NA.
- Date operations begin	Mixed waste operations under interim status, Part A, Form 3, permit application, began 8/19/87.
- Current regulatory status	Operating under interim status to a current Part A Permit Application.
Budget status for continued operations	Funding has been requested in the FY 2003 through FY 2004 budgets and currently is planned to be requested through the FY 2008.
Planned completion of treatment using this facility	The baseline plan anticipates that the majority of this treatability group will be processed using commercial treatment; however, significant treatment activities have occurred and could occur at T Plant Complex. Stored inventories are expected to decrease with anticipated processing rates. Because waste generation is expected to continue through the life of the Hanford Site cleanup operations, continued treatment will be needed into the foreseeable future.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility.	The primary treatment processes are expected to be the commercial treatment facilities described in Sections 3.1.1 and 3.1.2. The 325 HTWU has some permitted capability to perform several treatment processes that could supplement the treatment planned for T Plant Complex.

FY	fiscal year
HTWU	Hazardous Waste Treatment Unit
MLLW	mixed low-level waste
NA	not applicable
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
Tri-Party Agreement (TPA)	<i>Hanford Federal Facility Agreement and Consent Order</i>

3.1.6 Environmental Restoration Disposal Facility Treatment

Chromium and lead-contaminated waste is treated by grouting or macroencapsulating within the disposal trenches. Specific information on the ERDF treatment activities is included in Table 3-6.

Table 3-6. Environmental Restoration Disposal Facility Treatment Activities Summary.

Type of information	Information
Treatability groups that the process is expected to treat	ERDF - Treatment.
Tri-Party Agreement milestones related to this treatability group	None. Treated as generated in compliance with regulatory timeframe; no compliance agreement required.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	160,000 m ³ .
Treatment capacity	NA.
Regulatory status information:	
- Date of RCRA permit application	NA.
- Date facility construction started	NA.
- Date operations begin	1996.
- Current regulatory status	Facility is operating under a CERCLA ROD issued in 1995, amended in 1997, 1999, and 2002.
Budget status for continued operations	Funding is included as part of the Richland Environmental Restoration Project.
Planned completion of treatment using this facility	2046.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility.	Commercial macroencapsulation could be used for some waste at significantly increased costs.

CERCLA *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
CY calendar year
ERDF Environmental Restoration Disposal Facility
FY fiscal year
MLLW mixed low-level waste
RCRA *Resource Conservation and Recovery Act of 1976*
ROD record of decision
Tri-Party Agreement *Hanford Federal Facility Agreement and Consent Order.*

3.1.7 200 Area Effluent Treatment Facility and Liquid Effluent Retention Facility

Numerous Hanford Site activities generate low-level aqueous waste. Radioactive effluents are generated primarily in the 200 Areas. The Liquid Effluent Retention Facility (LERF) consists of three RCRA-compliant surface impoundments for storing low-level aqueous waste. The LERF provides segregation of RCRA- and CERCLA-regulated feed and equalization of the flow and pH of the feed to the 200 Area Effluent Treatment Facility (ETF). Each LERF basin has a capacity of 30 million L (7.8 million gal). A truck unloading station allows receipt of liquid effluents from other projects for transfer either to the LERF for storage or directly to the ETF for treatment.

Liquid effluents stored in LERF are treated in ETF to remove toxic metals, radionuclides, and ammonia, and to destroy organics. The ETF treatment process constitutes best available technology (BAT) treatment and includes pH adjustment, filtration, ultraviolet light/peroxide destruction of organics, reverse osmosis, degasification, and ion exchange. Storage tanks allow for hold-up of the treated effluent to verify that the waste has been treated to concentration levels in the permit before discharge. The treated effluent is discharged under a Washington Administrative Code (WAC) 173-216 State Waste Discharge Permit to a state-approved land disposal site (SALDS) north of the 200 West Area after being delisted (40 Code of Federal Regulations [CFR] 261, Appendix IX, Table 2). Table 3-7 contains information on ETF.

The purgewater agreement signed by DOE, Ecology, and the EPA is being renegotiated. Currently, aqueous waste (Purgewater treatability group) from wells is received at the 600 Area Purgewater Storage and Treatment Facility (PSTF) and is treated via solar evaporation. The aqueous waste is from sampling, well maintenance, and well drilling. Under the revised agreement, this waste could be sent to ETF for treatment and disposal. For this report, the 2003 to 2007 purgewater forecast is maintained in the PSTF treatability group. The forecast might be revised to reflect the transfer to the ETF treatability group depending on the outcome of renegotiations.

Table 3-7. 200 Area Effluent Treatment Facility Summary.

Type of information	Information
Treatability Groups that the process is expected to treat	LERF/ETF Liquid Waste, and possibly Purgewater.
Tri-Party Agreement milestones related to this treatability group	M-026-05J, Submit to EPA and Ecology an Evaluation of Development Status of Tritium Treatment Technology, 8/31/2003; M-26-05L, Submit to EPA and Ecology an Evaluation of Development Status of Tritium Treatment Technology, 8/31/2005; The duration for this milestone has been proposed to go from every 2 years to every 5 years; when the Tri-Party Agreement Change Request is approved, August 2004 will be the next submittal.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	ETF will process up to 420,000 m ³ of effluent from various generating units. The exact volume of effluent processed depends on the actual volumes transferred to the LERF/ETF.
Treatment capacity	210,000 m ³ /yr.
Regulatory status information:	
- Date of RCRA permit	1997 (final status).
- Date facility construction started	1992.
- Date system testing started	1994.
- Date operations begin	1995.
- Current regulatory status	Operating under a final status RCRA permit (except for groundwater monitoring).
Budget status for continued operations	Funded for minimum safe operations.
Planned completion of treatment using this facility	2032.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility	None.

Note: to convert gallons to cubic meters, multiply by 0.0037845.

CY	calendar year
ETF	200 Area Effluent Treatment Facility
LERF	Liquid Effluent Retention Facility
MLLW	mixed low-level waste
RCRA	Resource Conservation and Recovery Act of 1976
Tri-Party Agreement	Hanford Federal Facility Agreement and Consent Order

3.1.8 325 Hazardous Waste Treatment Unit

The 325 HWTU is a RCRA permitted TSD unit used to perform tank- and bench-scale treatment of mixed waste and to investigate other treatment technologies. The 325 HWTU is located in the 325 Building in the 300 Area and is intended to treat small volumes of mixed waste to meet CWC waste acceptance criteria for storage. Waste that is not LDR compliant for disposal is sent to CWC to await further treatment. Waste that meets disposal requirements is sent to the Low Level Burial Grounds (LLBG). Table 3-8 contains information on the 325 HTWU.

Table 3-8. HWTU Summary.

Type of information	Information
Treatability groups that the process is expected to treat	325 HWTU.
Tri-Party Agreement milestones related to this treatability group	None.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.
Treatment capacity	14 m ³ /day.
Regulatory status information:	
- Date of RCRA permit (final status)	1998 (Part A, Form 3, application 1988).
- Date facility construction started	1952.
- Date system testing started	1991.
- Date operations begin	1991.
- Current regulatory status	Final permit.
Budget status for continued operations	Funding has been included in the current 8-year plan.
Planned completion of treatment using this facility	2025.
Alternative facilities that could be used in place of this facility or to supplement capacity for this facility	Commercial treatment facilities could have capacity to treat some of the waste streams.

CY calendar year
HWTU Hazardous Waste Treatment Unit
MLLW mixed low-level waste
RCRA *Resource Conservation and Recovery Act of 1976*
Tri-Party Agreement *Hanford Federal Facility Agreement and Consent Order.*

3.1.9 Waste That Currently Meets Disposal Requirements

Some mixed waste does not require treatment to meet LDR requirements before disposal. The largest volume of this mixed waste is generated by the environmental restoration activities conducted under CERCLA and is transferred directly to ERDF. This waste falls outside the scope of the LDR report, when storage does not occur based on an agreement with Ecology on February 6, 2003. A treatability group that does not require treatment but storage is occurring at the CWC is MLLW-01, LDR Compliant Waste. Most of this waste stream will be disposed of in the LLBG. A fraction of the waste in this LDR Compliant Waste treatability group currently does not meet DOE requirements for disposal, but eventually will be treated to meet these requirements. Waste not meeting disposal requirements is stored. Section 3.5 summarizes the information for the ERDF and LLBG.

3.2 MIXED WASTE STREAMS FOR WHICH TECHNOLOGY EXISTS BUT NEEDS ADAPTATION

As discussed in the following sections, processing is needed for the RH waste currently on the Hanford Site and for the RH waste expected to be generated in the future.

3.2.1 T Plant Complex For M-091 Capability

In a previous evaluation of alternatives (HNF-6287), modifying the T Plant Complex is identified as the lowest cost alternative. The modified portion of the T Plant Complex is known on the Hanford Site as the "M-091 Capability", named for the M-091 Tri-Party Agreement milestone that requires this. The M-091 Capability also is anticipated to provide for processing of the RH TRUM waste and the CH TRUM waste that cannot be accepted into the Waste Receiving and Processing (WRAP) Facility. These waste types are discussed in more detail in the TRUM section. Table 3-9 contains information on the M-91 Capability for MLLW.

Table 3-9. Summary of the M-091 Capability at the T Plant Complex.

Type of information	Information
Treatability groups that the process is expected to treat	MLLW-07, RH and Large Container.
Tri-Party Agreement milestones related to this treatability group	Tri-Party Agreement Target date M-091-14-T01, Award commercialization contracts for treatment of RH and large-size MLLW (10/31/2003); Tri-Party Agreement Interim Milestone M-091-15, Complete Acquisition of Facilities to Initiate Treatment of RH and Large-Container MLLW (6/30/2008).
Technology needed for facility	Technology needs for processing all this waste are expected to be complex; it is anticipated that in addition to developing existing technology capabilities, further technology demonstrations and deployments are required.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.
Treatment capacity	To be determined based on design reports.
Regulatory status information:	
- Design reports	Functional design criteria (FDC), 9/2009; critical design document (CDD), 6/2010.
- Submittal of RCRA permit application	Expected to be a modification to T Plant Complex Permit 6/2013.
- Date design and construction contract to be awarded	6/2012.
- Date facility construction to be started	6/2013.
- Date operations begin	10/2016.
- Current regulatory status	NA.
Budget status for design, construction, and operations	Included in long-range budgets, but not within the scope of this report (2003-2007).
Estimated date of completion of treatment with the assumption of available funding.	RH waste continues to be produced through the operation and decontamination and decommissioning (D&D) of tank farms and vitrification facilities; therefore, treatment will continue through at least 2032.
Alternatives for treating this waste.	Several alternatives have been considered over the past 5 years. The most attractive alternative is construction of a new modular treatment facility for these and other difficult-to-treat waste groups.

CDD	conceptual design document
CY	calendar year
D&D	decontamination and decommissioning
FDC	functional design criteria
MLLW	mixed low-level waste
NA	not applicable
Tri-Party Agreement	Hanford Federal Facility Agreement and Consent Order.

3.2.2 Commercial Amalgamation

Elemental mercury waste requires amalgamation as the best demonstrated available technology (BDAT) treatment. Mercury can be present as a small-percentage component in some waste, but also can be present in high concentrations. Mercury present in concentrations >260 mg/kg requires retorting or roasting to recover the metal.

The Hanford Site inventory of mercury-bearing waste is relatively small, as is the case with inventories at other sites across the DOE complex. As part of an effort to increase the efficiency of the treatment and disposal of this waste across the DOE complex, DOE headquarters is leading an effort to assess the magnitude of the need for mercury-bearing waste treatment across the DOE Complex and to develop a national contract for treatment of this waste. In the Hanford Site baseline, the plan is to focus on larger volume waste categories for which treatment capability or contracts exist and await the outcome of this national coordination effort before implementing treatment of mercury-bearing waste.

Several commercial technologies have been reported to be available for some types of mercury waste. (For more information, refer to the Idaho National Engineering and Environmental Laboratory (INEEL) website listed in Chapter 10.0).

Table 3-10. Commercial Amalgamation Summary.

Type of information	Information
Treatability group that the process is expected to treat	MLLW-06, Elemental Mercury.
Tri-Party Agreement milestones related to this treatability group	Discussed as part of the M-091 TPA dispute.
Technology needed for facility	Commercial amalgamation (also might require RMERC technology).
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.
Treatment capacity	Treatment capacity to support the Hanford Site needs is expected to be <10 m ³ per year. Actual treatment capacity from the national integration effort will be determined later.
Regulatory status information:	
- Design reports	NA.
- Submittal of permit application	NA.
- Date design and construction contract to be awarded	NA.
- Date facility construction begins	NA.
- Date operations begin	2005.
- Current regulatory status	NA.
Budget status for design, construction, and operations	Baseline budgets assume commercial treatment beginning in 2005.
Estimated date of completion of treatment with the assumption of available funding.	Existing inventory estimated to be treated by 2007. Because waste generation is expected to continue through the life of Hanford Site cleanup operations, continued treatment will be needed through the foreseeable future.
Alternatives for treatment of this waste.	Several alternative technologies exist and will be the primary alternatives. A national effort is under way to assess needs and develop a nationwide procurement for mercury amalgamation services. An alternative would be to build the capacity for amalgamation into the M-091 capability.

Table 3-10. Commercial Amalgamation Summary.

Type of information	Information
CY	calendar year
MLLW	mixed low-level waste
NA	not applicable
RMERC	Specified technology treatment standard defined in 40 CFR 268.42.
Tri-Party Agreement (TPA)	<i>Hanford Federal Facility Agreement and Consent Order.</i>

3.3 MIXED WASTE TREATABILITY GROUPS REQUIRING FURTHER CHARACTERIZATION, OR FOR WHICH TECHNOLOGY DOES NOT EXIST OR A TECHNOLOGY ASSESSMENT HAS NOT BEEN DONE

Treatment planning for these waste treatability groups is less complete and continues.

3.3.1 Treatability Groups for which Further Characterization is Needed

Many of the waste groups currently in storage were stored before the current characterization and classification systems were implemented in 1995. The waste acceptance process at that time emphasized safe storage, and the information collected on the waste was to ensure safe storage. Specific information required for treating the waste was not collected. For this waste, the adequacy of the existing characterization information needs to be re-assessed. Therefore, before waste treatment, the existing TSD record information will be reviewed and corrections will be made as necessary based on existing knowledge.

The current baseline assumes that waste requiring additional characterization is characterized in sequence with and near planned treatment and disposal dates. The close coordination of waste characterization schedules with planned treatment and disposal dates has the following benefits.

- Coordination avoids long lag times between characterization and treatment and disposal, minimizing the potential need to recharacterize waste as acceptance, treatment, and disposal criteria evolve.
- Coordination allows for closer matching of characterization efforts with budget constraints.

A dispute under the TPA is being resolved to establish a mixed waste disposal milestone under TPA M-091 that would include many of the waste groups currently in storage. Characterization is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

3.3.2 Treatability Groups For Which Treatment Technology Has Not Been Selected

Some waste streams in storage have not had technology assessments or selection completed so the streams can be assigned to treatability groups for treatment in existing treatment processes. When the technology assessments for the waste in this category have been completed, many of the waste streams probably can be treated in one of the existing processes. Waste treatability groups for which treatment technologies have not been selected include the following:

- MLLW-08, Unique Waste
- MLLW-10, Reactive Metals
- B Plant Cell 4
- B Plant Containment Building

- 241-CX Tank System
- Hexone Storage and Treatment Facility (HSTF)
- 222-S T8 Tunnel
- 221-T Tank System.

MLLW-10, Reactive Metals (Table 3-11), represents a relatively small volume. As is the case with the inventory of reactive metals waste on the Hanford Site, these waste categories are common with waste categories at other sites across the DOE complex. As part of the effort to increase the efficiency of treatment and disposal of this waste across the DOE complex, DOE headquarters is leading an effort to assess the need for reactive metal treatment and develop a national contract for treating this waste. In the Hanford Site baseline, the plan is to focus on larger volume waste categories for which treatment capabilities or contracts exist and await the outcome of the national coordination effort before treating these smaller waste streams.

Table 3-11. Information for Selected Treatability Groups for Which Treatment Technology Assessments have not been Completed.

Type of information	Information
Treatability groups included in this category	MLLW-08, Unique Waste, MLLW-10, Reactive Metals.
Tri-Party Agreement milestones related to these treatability groups	Discussed as part of the M-91 TPA dispute.
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.
Technology needed for facility	
Characterization status information	
- Characterization needed defined	NA.
- Characterization milestones	NA.
Treatment status information:	
- Treatability testing	NA.
- Feasibility analysis and reports	NA.
- Bench- and pilot-scale testing reports	NA.
- Research, development, and demonstration projects	NA.
- Design reports	NA.
- Permitting milestones	NA.
- Treatment milestones	None.
Budget status for testing, development, design, construction, and operations	Priorities within the next 5-year window are not sufficient to begin work on these treatment processes.
Estimated completion date for treatment of treatability groups with the assumption of available funding.	Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

MLLW mixed low-level waste
NA not applicable
TBD to be determined
Tri-Party Agreement *Federal Facility Agreement and Consent Order.*

The waste included in the B Plant Cell 4 and B Plant Containment Building treatability groups is stored in a facility managed under a regulator-approved long-term surveillance and maintenance (S&M) plan (DOE/RL-99-24). Therefore, active management of the waste is not planned in the near term. Ongoing S&M activities for these two B Plant Complex treatability groups will be conducted in accordance with

the approved S&M plan and associated Tri-Party Agreement commitments until DOE Headquarters decides to initiate the disposition phase or other actions required under the terms of the *Tri-Party Agreement Action Plan*, Section 8.1 or 8.3.3.

Waste in both the 241-CX Tank System and the HSTF treatability groups will be addressed as part of the remedial action of the 200-IS-1 Operability Unit.

In the resolution negotiations for the Notices of Deficiency the 222-S Laboratory Complex Part B permit application, Ecology agreed that the 222-S T8 Tunnel waste can remain in the 222-S Laboratory Complex until closure. The current schedule reflects initiating cleanout of the 222-S Laboratory Complex in FY 2033 and transition to facility disposition in FY 2035.

Information concerning the 221-T Tank System Waste is included in Table 3-12.

Table 3-12. Information for the 221-T Tank System Waste for Which Treatment Technology Assessments have not been Completed.

Type of information	Facility Information
Treatability group included in this category	221-T Tank System
Tri-Party Agreement milestones related to this treatability group	Completed.
Technology needed for facility	
Projected volume of MLLW to be treated between CY 2003 and the end of CY 2007	0
Characterization status information	
- Characterization needed defined	Unknown until the treatment capability is defined. This waste might change radioactivity categories from LLMW to TRUM through evaporation.
- Characterization milestones	NA.
Treatment status information:	
- Treatability testing	NA.
- Feasibility analysis and reports	NA.
- Bench- and pilot-scale testing reports	NA.
- Research, development, and demonstration projects	NA.
- Design reports	NA.
- Permitting milestones	Complete (M-20-51).
- Treatment milestones	12/2007 for evaporation of liquid fraction only. Solids proposed to be handled with canyon disposition, in accordance with DOE-RL to Ecology letter #01-RCA-192, dated 3/29/01.
Budget status for testing, development, design, construction, and operations	Priorities within the next 5-year window are not sufficient to begin work on this waste group.
Estimated completion date for treatment of treatability group with the assumption of available funding	Priorities within the next 5-year window are not sufficient to begin work on this waste group.

DOE-RL

Ecology

MLLW

NA

Tri-Party Agreement

UHC

U.S. Department of Energy, Richland Operations Office

Washington State Department of Ecology

mixed low-level waste

not applicable

Federal Facility Agreement and Consent Order

underlying hazardous constituents

3.4 RADIONUCLIDE SEPARATION PLANS

For MLLW, the only process that involves extensive separations is aqueous waste treatment at ETF, discussed in Section 3.1.8. No separation activities specifically are planned for any other MLLW treatability group.

3.5 MIXED WASTE DISPOSAL

MLLW is disposed of in the LLBG mixed waste trenches, ERDF, and Trench 94 of LLBG for defueled naval reactor compartments. The mixed waste trenches and ERDF are discussed in this section. Trench 94 is not included in the scope of this report. Disposal facilities to be used for the disposal of low activity waste (LAW) from the vitrification of high-level waste (HLW) are discussed in Section 5.6. Plans are being made for a trench to support disposal of mixed waste spent melters from the Waste Treatment Plant.

3.5.1 Low-Level Burial Ground Mixed Waste Trenches

The LLBG mixed waste trenches (218-W-5, Trenches 31 and 34) have been constructed to provide disposal capabilities for a substantial portion of the Hanford Site RCRA mixed waste. Waste for disposal in these trenches must meet the Hanford Site Solid Waste Acceptance Criteria (HNF-EP-0063). Each disposal trench has a capacity of about 24,000 m³ air volume. The LLBG mixed waste trenches are RCRA compliant. In future years, Trenches 31 and 34 are expected to be filled. In addition to the facilities mentioned in Section 3.5, a new RCRA-compliant trench will be constructed. Table 3-13 provides additional information on the mixed waste disposal trenches.

Table 3-13. Summary for Low-Level Burial Grounds Mixed Waste Trenches.

Type of information	Information
Treatability groups going to this disposal unit.	MLLW-01 through 10, and 325 HWTU treatability group waste that meet the waste acceptance requirements.
Tri-Party Agreement milestones related to this disposal unit	M-091-13 – Completed 11/1/1999.
Current combined capacity of the two existing trenches	48,000 m ³ air volume capacity; actual waste volume disposed of will be less.
Regulatory status information	
- Date of RCRA or other permit	Currently operating under interim status, Part B permit application scheduled to be certified following completion of current Notice of Deficiency cycle (possibly 2003).
- Date construction started	1994.
- Date disposal started	September 15, 1999 (storage operations began in 1997).
- Date operations scheduled to end	2035. This date includes future mixed waste trenches.
Budget status for testing, development, design, construction, and operations	Ongoing operations.

Table 3-13. Summary for Low-Level Burial Grounds Mixed Waste Trenches.

Type of information	Information
Expansion plans or alternatives	The Nevada Test Site was an alternative considered in the PEIS*. Expansion will be required to support Hanford Site waste disposal.

* DOE/EIS-0222F, *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Mixed Wastes*, U.S. Department of Energy, Washington, D.C.

CY calendar year
MLLW mixed low level waste
RCRA *Resource Conservation and Recovery Act of 1976*
Tri-Party Agreement *Hanford Federal Facility Agreement and Consent Order.*

3.5.2 Environmental Restoration Disposal Facility

ERDF is a RCRA-compliant landfill authorized under CERCLA. The landfill is used for disposal of environmental restoration waste generated from cleanup activities. ERDF is designed to receive and dispose of low-level radioactive waste or mixed waste generated through remediation activities on the Hanford Site. The original two cells have been filled since the landfill opened in 1996. Cells 3 and 4 were constructed and are now in use. Table 3-14 summarizes ERDF information.

Table 3-14. Information for Environmental Restoration Disposal Facility.

Type of information	Information
Treatability groups going to this disposal unit.	ERDF – Treatment
Tri-Party Agreement milestones related to this disposal facility	Completed (M-070-00, M-016-92B).
Capacity of current units (Cells 3 and 4)	1,200,000 m ³ .
Estimated volume of capacity to be constructed by 2007 (Cells 5 and 6)	1,200,000 m ³ .
Regulatory status information	Unit is operating under a CERCLA ROD.
- Date of RCRA or other permit	CERCLA ROD issued January 1995, amended in September 1997, and March 1999, and January 2002.
- Date construction started	1995.
- Date disposal started	July 1996.
- Date for end of operations	2046.
Budget status for continued operations	ERDF operations are budgeted as part of the Richland Environmental Restoration Project. ERDF operations and cell construction are included in the project's budget requests.
Expansion plans or alternatives	Additional cells will be constructed as needed.

¹The volume identified in these rows is the total volume of waste forecast to be disposed of at ERDF. The location-specific data sheets report only the mixed waste fraction of waste disposed of at ERDF. Historically, mixed waste accounts for only 2% of the total waste disposed of at ERDF.

CERCLA *Comprehensive Environmental Response, Compensation, and Liability Act of 1980*
ERDF Environmental Restoration Disposal Facility
ROD record of decision
Tri-Party Agreement *Hanford Federal Facility Agreement and Consent Order.*

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4.0 TRANSURANIC MIXED WASTE STREAMS

On the Hanford Site, all newly generated small container CH TRUM is certified through the Hanford Site TRU Program. Functions in support of certification are conducted predominantly at the WRAP Facility, but some functions are performed at other locations, including T Plant Complex, the analytical laboratories, and the generating facilities. Oversized and RH waste generated near term is stored to await processing via the M-091 capability and certification through the Hanford Site TRU Program. The disposition map in Figure 4-1 shows an overview of the anticipated processing of TRUM treatability groups. This figure shows the major waste treatability groups and the planned process for each group.

It is the position of the DOE that any methods, data, or information contained in the LDR report related solely to the radioactive component of TRU or TRUM is outside the scope of the LDR report, the *State of Washington Hazardous Waste Management Act of 1976* or the *Resource Conservation and Recovery Act of 1976*. It is the position of Ecology that the radioactive component influences safe management of mixed waste and therefore information about this component is necessary to ensure compliance with the *Dangerous Waste Regulation, WAC 173-303*, and the *Resource Conservation and Recovery Act of 1976*. Both agencies are currently challenging the other's positions. Consequently, the information provided in this LDR report related to TRU or TRUM is provided for information purposes only to ensure completeness of the LDR report. The DOE is providing the information without agreeing to the Ecology position. Ecology accepts the information without giving up its position. The ongoing litigation regarding TRU waste may result in changes to next years LDR report.

TRUM Waste Disposition Map

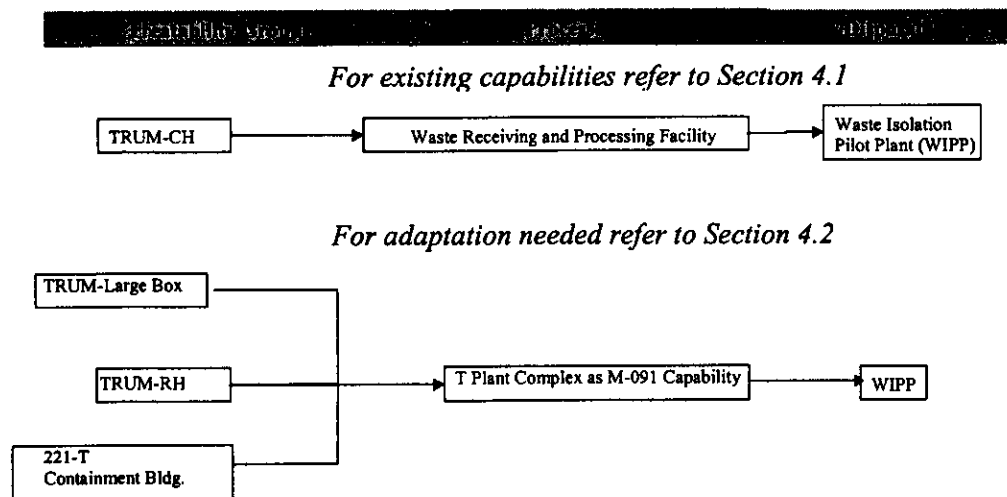


Figure 4-1. Site Disposition Map for TRUM Treatability Groups.

4.1 TRANSURANIC MIXED WASTE STREAMS FOR WHICH PROCESSING TECHNOLOGY EXISTS - WRAP FACILITY

The primary purpose of the WRAP Facility is to certify waste to WIPP waste acceptance criteria for shipment to WIPP. The WRAP Facility provides capabilities to receive waste; confirm contents of drummed and standard waste boxes; repack, inspect, and certify the waste to WIPP waste acceptance criteria; and provide limited processing of some specific waste types. The WRAP Facility can process

only CH waste in drums or standard waste boxes. Table 4-1 provides information concerning the WRAP Facility. The WRAP Facility Part B permit application (DOE/RL-91-16) contains additional information.

Table 4-1. Information Concerning Processes at the WRAP Facility.

Type of information	Facility-specific information
Treatability group that the process is expected to treat	TRUM-CH.
Tri-Party Agreement milestones related to this treatability group	M-91-02 Completed.
Projected volume of TRUM to be processed between CY 2003 and the end of CY 2007	1,000 m ³ .
Treatment capacity	Permitted capacity is 13 m ³ /day.
Regulatory status information:	
- Date of RCRA permit application	6/99 and settlement agreement in 2002.
- Date treatment contract established	NA.
- Date facility construction started	Groundbreaking 4/94.
- Date system testing started	Acceptance test procedures initiated on 2/13/96.
- Date for commencement of operations	Phase I operations [shipping and receiving and NDE/NDA] initiated 3/12/97 Phase II operations (Process Area) initiated 9/9/98.
- Current regulatory status	Operating under interim status; transition to final status is pending.
Budget status for continued operations	Funding has been requested in the FY 2003 and FY 2004 budgets and currently is planned to be requested through the FY 2007 budgets.
Planned completion of treatment using this process	2032.
Alternative processes that could be used in place of this process or to supplement capacity for this process.	No other single facility within the DOE complex embraces the scope of the capabilities of the WRAP Facility. The complete set of processes is available, though, at several other DOE locations: INEEL, Rocky Flats, Savannah River Site (SRS), and Los Alamos. In addition, repackaging and characterization capabilities have been developed that can be deployed at sites, using temporary rather than permanent installation.

CY	calendar year	NDA	nondestructive assay
DOE	U.S. Department of Energy	NDE	nondestructive examination
INEEL	Idaho National Engineering and Environmental Laboratory	Tri-Party Agreement	Hanford Federal Facility Agreement and Consent Order
Los Alamos	Los Alamos National Laboratory	SRS	Savannah River Site
		WRAP	Waste Receiving and Processing Facility

4.2 TRANSURANIC MIXED WASTE TREATABILITY GROUPS FOR WHICH CHARACTERIZATION AND PROCESSING TECHNOLOGIES NEED ADAPTATION

Current planning includes modifying the T Plant Complex to provide treatment capability to meet the M-091 Milestone requirements. The requirements are to provide for the processing of RH TRUM and oversize containers of TRUM waste. The T Plant Complex (M-091 Capability) also is anticipated to provide for processing of unique TRUM waste streams. The RH waste processing needs to use remote processing methods and technologies. Existing technologies need to be adapted and better technologies developed to improve operational efficiency. The technology information is needed as the process designs are developed. Table 4-2 provides information for the T Plant Complex modification.

Table 4-2. Information for Modifications of T Plant Complex to Meet M-091 Processing Commitments.

Type of information	Information
Treatability group that the process is expected to treat	TRUM-Large Box; TRUM-RH; 221-T Containment Building.
Tri-Party Agreement milestones related to these treatability groups pending resolution of TPA M-091 dispute.	M-091-01, M-091-05-T01, M-091-06-T01, M-091-14-T01, M-091-15, M-091-19-T01, M-091-20, M-091-21-T01, M-091-22.
Technology needed for facility	Remote handling and processing technologies.
Projected volume of TRUM to be processed between CY 2003 and the end of CY 2007	Processing not included in baseline funding through 2007.
Treatment capacity	To be determined by design reports.
Regulatory status information:	
- Design reports	Conceptual design document (sludge) 6/29/2001 (completed). Functional design criteria (RH and boxes) proposed 2007. Conceptual design report (RH and boxes) proposed 2008.
- Submittal of permit application	To be determined during design.
- Date design and construction contract to be established	2009.
- Date facility construction to be started	2010.
- Date for commencement of operations	2013.
- Current regulatory status	In planning.
Budget status for design, construction, and operations	Included in long-range budgets, but not within the 2007 window of this report.
Estimated date of processing completion of treatability groups with the assumption of available funding.	2032.
Alternatives for processing of this waste.	Construction of a new facility or a set of modules.

Note: TRUM waste processing is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

CY calendar year
RH remote handled
Tri-Party Hanford Federal Facility Agreement and Consent Order
Agreement
TRUM transuranic mixed

4.3 TRANSURANIC MIXED WASTE TREATABILITY GROUPS WITH PROCESSING TECHNOLOGY NOT SELECTED

This section covers treatability groups that do not have a processing method. Before a processing method can be specified for these media, additional technology assessments need to be performed and/or further characterization might need to occur. Once a processing method is specified and before waste treatment, the existing TSD record information will be reviewed and characterization corrections will be made as necessary based on existing acceptable knowledge. Process planning for the following treatability groups continues:

- PUREX Plant
- PUREX Storage Tunnel
- 324 Building Radiochemical Engineering Cell (REC) Waste
- TRUM-PCB.

The waste associated with these treatability groups needs to be characterized to meet WIPP waste acceptance criteria. RH equipment and techniques are needed to support characterization for most of the waste. Also, for PCB-contaminated waste, thermal treatment might be required to destroy the PCB content.

Waste transfers to certain onsite TSD units are performed in accordance with HNF-EP-0063. This document specifies waste characterization criteria necessary to support proper interim storage and future processing, storage, and/or disposal requirements for TRUM waste. Future Hanford Site waste management requirements related to these streams are currently the subject of the ongoing TPA M-091 dispute.

4.3.1 PUREX Storage Tunnels

The PUREX Storage Tunnels are a RCRA-regulated storage unit and are subject to Hanford Facility RCRA permit conditions. Waste in the PUREX Storage Tunnels treatability group is being stored at a final status miscellaneous unit. Under the Hanford Facility RCRA Permit, closure of the PUREX Storage Tunnels must be coordinated with the final closure plan for the PUREX facility which is under S&M provisions of Section 8.0 of the TPA. Therefore, PUREX Storage Tunnels waste disposition will be coordinated with PUREX Plant waste discussed in Section 4.3.2.

4.3.2 PUREX Plant

Ongoing S&M activities for the PUREX Plant treatability group are conducted in accordance with the approved S&M plan and associated Tri-Party Agreement commitments until DOE Headquarters decides to initiate the disposition phase or actions required by the lead regulatory agency pursuant to the terms of the Tri-Party Agreement Action Plan, Sections 8.1 or 8.3.3. The waste included in the PUREX Plant treatability group is stored under a regulator-approved long-term S&M plan. Therefore, active management of the waste is not planned in the near term.

4.3.3 324 Building Radiochemical Engineering Cell Waste

The 324 Building REC Waste is being dispositioned in accordance with Tri-Party Agreement Milestone M-89-00 due October 31, 2005. Under this milestone, TRUM is removed from the 324 Building and transferred to onsite TSD units.

4.3.4 TRUM-PCB

The preferred alternative is disposal of the PCB-contaminated TRUM waste at WIPP. WIPP is pursuing approval to dispose of TSCA waste with PCB concentrations above 50 ppm. Upon approval of WIPP to accept TSCA waste, this waste will be evaluated for disposal at WIPP. If WIPP disposal is not possible, a specific technology for PCB treatment will be selected during the M-091 scoping activities, which could include chemical treatment (e.g., chemical oxidation, reduction, or dechlorination) or thermal treatment (e.g., molten salt oxidation, vitrification, pyrolysis, steam reforming).

4.4 DISPOSAL OF TRANSURANIC MIXED WASTE

As noted in Figure 4-1, the current plan is to ship certified TRUM waste to WIPP. Waste being disposed of at WIPP must meet WIPP waste acceptance requirements. Waste is shipped to WIPP in appropriate containers and special packages. Table 4-3 provides specific information on the disposal of TRUM waste.

It is the position of the DOE that disposal of TRU or TRUM is outside the scope of the LDR report, the *State of Washington Hazardous Waste Management Act of 1976* or the *Resource Conservation and Recovery Act of 1976*. It is the position of Ecology that disposal information is necessary to assess safety under the state program. Both agencies are currently challenging the other's positions. Consequently, the information provided in this LDR report on TRU waste is provided for information purposes only to ensure completeness of the LDR report. The DOE is providing the information without agreeing to the Ecology position. Ecology accepts the information without giving up its position. The ongoing litigation regarding TRU waste may result in changes to next years LDR report.

Table 4-3. Information for the Disposal of Transuranic Mixed Waste at the Waste Isolation Pilot Plant.

Type of information	Information
Treatability groups going to this disposal facility.	TRUM-RH, TRUM-Large Box, TRUM-CH, and TRUM-PCB. Treatability groups for TRUM waste with processing technologies not selected also will need to be sent to WIPP as waste is qualified.
Tri-Party Agreement milestones related to this disposal facility	None.
Regulatory status information	
- Date of RCRA or other permit	1999.
- Date construction started	NA.
- Date disposal started	1999.
- Date operations end	2034 (based on projected WIPP closure date).
Budget status for testing, development, design, construction, and operations	WIPP budget is not part of Hanford Site budget.
Expansion plans or alternatives	NA.

CH	contact handled
CY	calendar year
NA	not applicable
PCB	polychlorinated biphenyl
RH	remote handled
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
TRUM	transuranic mixed
WIPP	Waste Isolation Pilot Plant.

4.5 RADIONUCLIDE SEPARATION PLANS

No plans exist for radionuclide separation as a processing step for TRUM waste because radionuclide separation is not required for these treatability groups to meet WIPP disposal criteria.

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5.0 HIGH-LEVEL WASTE STREAMS

Figure 5-1 shows an overview of the anticipated treatment of HLW treatability groups. The basic process will be for the single-shell tank (SST) System waste to be moved to the double-shell tank (DST) System as space becomes available. The waste will be moved from the DSTs to a waste pretreatment or separation unit where most of the high-activity material will be removed and sent to the high-level vitrification unit. The larger volume of remaining low-activity waste will be sent to a separate low-activity vitrification unit. The vitrification processes will convert the waste into a stable glass-like material for interim storage and eventual disposal. It has been determined per the *Framework Agreement for Management of PCBs in Hanford Tank Waste* (Ecology 2000), dated August 31, 2001, that some DSTs contain PCB remediation waste. The risk-based disposal approval process addresses the disposal of PCB remediation waste through the waste treatment plant (WTP) where PCBs have been addressed as a constituent of concern. Figure 5-1 shows the HLW treatability groups and the planned treatment process.

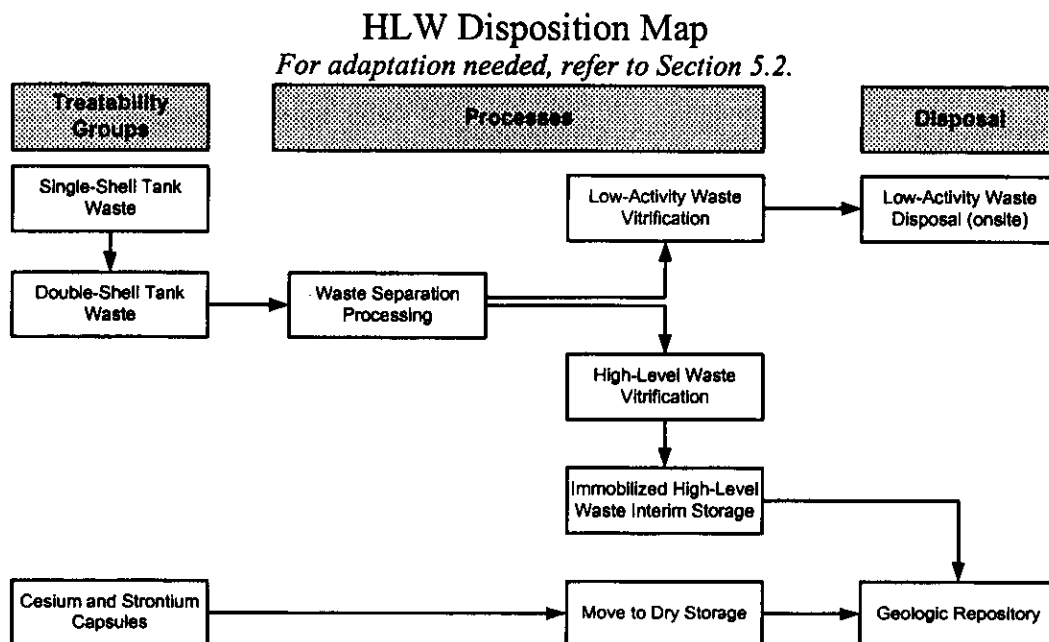


Figure 5-1. High-Level Waste Disposition Map.

5.1 EXISTING TREATMENT PROCESSES

No HLW LDR treatment processes currently are available for treating the Hanford Site waste. The Hanford Site does have HLW evaporators used for many years to concentrate HLW in the tanks and to make tank space available for new or transferred waste. The 242-A Evaporator operation is not LDR treatment; however, operations result in sending a portion of the tank waste (condensate) to LDR treatment at LERF/ETF. The 242-A Evaporator operation is not covered in this LDR report.

5.2 WASTE STREAMS FOR WHICH TREATMENT TECHNOLOGY IS NEEDED

The LDR-specified treatment technology for HLW is vitrification (HLVIT). Planning for vitrification processes for the Hanford Site is ongoing and is a high priority. Details of the contract for completion of

the design and construction of the treatment units for the HLW are available on the Internet¹. Additional details of the planning for HLW management also are available on the Internet¹. Table 5-1 summarizes the key information.

Table 5-1. Information for High-Level Waste Vittrification.

Type of information	Information
Treatability groups that the process is expected to treat	DST Waste; SST Waste.
Tri-Party Agreement milestones related to these treatability groups	M-092-00, Acquisition of New Facilities; M-090-00, New Facilities for immobilized high-level waste (IHLW) and immobilized low-activity waste (ILAW); M-062-00, Complete Pretreatment Processing and Vittrification of Hanford High Level (HLW) and Low Activity (LAW) Tank Wastes, M-020-56, Submit Canister Storage Facility Part B Dangerous Waste Permit Application to Ecology, 06/30/2003 and M-020-67, Submit ILAW Disposal Facility Certified Part B Permit Application to Ecology, 06/30/2003.
Technology needed for facility	Vittrification technology has been used at both Savannah River Site and West Valley, but needs some modifications to be applicable to Hanford Site waste.
Projected volume of HLW to be treated between CY 2003 through the end of CY 2007	First processing of HLW is scheduled for 2007.
Treatment capacity	To be determined by final design.
Regulatory status information:	
- Submittal of RCRA permit application	WTP: Final status obtained September 2002. DST System: Revised Part B Permit Application expected 8/2003.
- Date design and construction contract established	2000
- Date facility construction begins	2002.
- Date operations to begin	2007.
- Current regulatory status	DST: Operating under interim status SST: Operating under interim status WTP: Construction under final status
Budget status for design, construction, and operations	Funding is available for FY 2003 to continue design and plans for construction. Funding for FY 2004 and beyond is contingent on Congressional budgets and actions.
Estimated treatment completion date of treatability group with the assumption of available funding.	<i>Complete Pretreatment Processing and Verification of Hanford HLW and LAW Tank Wastes</i> , Tri-Party Agreement Milestone M-62-00 due 12/31/2028.
Alternatives for treatment of this waste.	None

CY	calendar year	ILAW	immobilized low-activity waste
DST	double-shell tank	SST	single-shell tank
FY	fiscal year	Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
HLW	high-level waste	WTP	Waste Treatment Plant
IHLW	immobilized high-level waste		

5.3 RADIONUCLIDE SEPARATION

The tank waste will be sent to the WTP where the waste will be separated into HLW and LAW fractions and treated to meet LDR standards.

¹ Internet addresses are given in the reference list (Chapter 10).

5.4 STORAGE OF HIGH-LEVEL WASTE

Initial canisters of vitrified HLW will be placed in storage in the existing Canister Storage Building, pending final disposal. Additional modules of the Canister Storage Building will be built as needed. The maximum need will be determined at a later date and depends on both the vitrification rate and the ability to ship waste from the Hanford Site to a national repository.

WESF stores the cesium and strontium capsules in pool cells. DOE plans to transfer the capsules from the pool cell to dry storage for shipment to a national repository. Treatment options are still being assessed. Several details of the plan must be worked out with Ecology including how to address the existing TPA milestones relating to the capsules (see the datasheets in Volume 1 Appendix B) and how to address RCRA permitting of the activity.

5.5 SHIPMENT OF HIGH-LEVEL WASTE TO A NATIONAL REPOSITORY

A national repository is expected to be prepared for the HLW and for the spent nuclear fuel accumulating at commercial nuclear power plants. Shipments dates are uncertain at this time, but will become more specific when the site is licensed and the national repository constructed and prepared to receive the HLW. These activities are beyond the scope of this report.

5.6 DISPOSAL OF THE LOW-ACTIVITY WASTE ONSITE

The vitrified LAW will be disposed of onsite in a RCRA subtitle C TSD unit. Start of definitive design cannot proceed until the preferred alternative is selected and the ROD is issued. The current status of the TSD unit is shown in Table 5-2.

Table 5-2. Information for Low-Activity Waste Disposal.

Type of information	Specific Information
Treatability groups going to this disposal facility.	LAW fraction from DST Waste and SST Waste treatability groups.
Tri-Party Agreement milestones related to this disposal facility	M-090-00, New facilities for IHLW and ILAW; M-020-67, Submit ILAW Disposal Facility Certified Part B Permit Application to Ecology, 06/30/2003.
Regulatory status information	
- Date of RCRA or other permit	Subject to completion of ROD and Tri-Party Agreement negotiations.
- Date construction started	Subject to completion of ROD and Tri-Party Agreement negotiations.
- Date disposal starts	2008 after the start of the WTP.
- Date for end of operations	~2025 (M-60-00) Complete immobilization of ILAW.

Table 5-2. Information for Low-Activity Waste Disposal.

Type of information	Specific Information
Budget status for testing, development, design, construction, and operations	Budget currently exists to start the SEIS.
Expansion plans or alternatives	Being evaluated for SEIS.
DST	double-shell tank
IHLW	immobilized high-level waste
ILAW	immobilized low-activity waste
RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
SST	single-shell tank
Tri-Party Agreement	<i>Hanford Federal Facility Agreement and Consent Order</i>
WTP	Waste Treatment Plant

6.0 TREATMENT OF POTENTIAL MIXED WASTE

Potential mixed waste is identified in Volume 1, Appendix C, of this report. Some of the materials as managed in the future could result in the generation of mixed waste, which would be assigned to an existing or new treatability group. If the material is assigned to an existing treatability group, treatment can be considered along with that of the other location-specific waste streams within that treatability group. Other potential mixed waste will require new or modified treatment processes. Treatment plans for these waste streams will be defined further when the streams are determined to be mixed waste. Other materials will be determined not to be mixed waste and will be handled accordingly.

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7.0 SUMMARY OF CHARACTERIZATION INFORMATION

As part of generation of any waste, a generating unit must take steps necessary to confirm the proper management of this waste. This includes identifying proper radioactive classification, understanding the physical matrix, properly designating the waste, and, where applicable, identifying the appropriate underlying hazardous constituents. Types of information that can be used to characterize waste can include data from analysis of the waste and knowledge of the materials and/or processes used to generate the waste. The information must be sufficient to quantify constituents of regulatory concern and to determine waste characteristics and unit-specific waste acceptance criteria.

This section discusses and summarizes the waste treatability groups and the planned characterization activities for the waste. Waste must be sufficiently characterized so the waste can be stored and managed properly. In addition, waste must be sufficiently characterized before treatment to ensure that the proper treatment processes are applied and that the resultant treated waste meets LDR standards. Table 7-1 summarizes the planned characterization activities for each of the treatability groups. Additional detail can be found on the individual location-specific data sheets (Volume 1, Appendix B). One column of information from Table 7-1 is reproduced in Table 2-2 of Volume 1.

Table 7-1. Summary of Characterization Information for Each Treatability Group.

Treatability Group Name	Report section	Additional characterization activities	Planned characterization schedule	Related Tri-Party Agreement milestone
221-T Containment Building	4.2	Completed.	Completed	Completed
221-T Tank System	3.3.2	Additional characterization might be required to support waste treatment.	Will be done in conjunction with T Plant Complex Canyon disposition.	Completed.
222-S T8 Tunnel	3.3.2	As required to initiate cleanout of 222-S.	2033	None.
241-CX Tank System	3.3.2	Additional characterization will be required to support 200-IS-1 Operable Unit studies.	To be determined through future negotiations.	Proposed Tri-Party Agreement Interim Milestones M-015-48A and -48B.
324 Building REC Waste	4.3.1	No further characterization planned for transfer to CWC. Additional characterization could be required to meet WIPP WAC.	Completed.	M-089-00.
325 HWTU	3.1.9	Characterization performed as generated.	Proposed M-091 ² .	Proposed M-091 ² .
618-4 DU/Oil Drums	3.1.4	Characterization was performed in 1998. No further characterization is necessary.	Completed.	M-016-031.
B Plant Cell 4	3.3.2	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan..

Table 7-1. Summary of Characterization Information for Each Treatability Group.

Treatability Group Name	Report section	Additional characterization activities	Planned characterization schedule	Related Tri-Party Agreement milestone
B Plant Containment Building	3.3.2	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan.
Cesium and Strontium Capsules	5.2	None.	Completed.	None.
DST Waste	5.2	Additional information could be required.	Ongoing.	M-050, M-051, M-061, M-062, M-090.
ERDF – Treatment	3.1.7	Characterized as generated.	Ongoing.	None. Treatment and disposal are performed under CERCLA decision documents.
HSTF	3.3.2	Additional characterization will be required to support 200-IS-1 Operable Unit studies.	To be determined through future negotiations.	Proposed Tri-Party Agreement Milestone M-015-48A and 48B.
LERF/ETF Liquid Waste	3.1.8	Characterization performed as generated.	Ongoing.	None.
MLLW-01 – LDR Compliant Waste	3.1.10 and 3.1.6	Characterization performed as generated ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-02 – Inorganic Non-Debris	3.1.1	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-03 – Organic Non-Debris	3.1.3	As necessary to meet treatment facility waste acceptance criteria ¹ .	M-091-12, M-091-12A, and Proposed M-091 ² .	M-091-12, M-091-12A, and Proposed M-091 ² .
MLLW-04A – O/C Hazardous Debris	3.1.3	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-04B – Non-O/C Hazardous Debris	3.1.2	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-05 – Elemental Lead	3.1.2	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-06 – Elemental Mercury	3.2.2	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-07 – RH and Large Container	3.2.1	As necessary to meet treatment facility waste acceptance criteria ¹ .	M-091-10 and Proposed M-091 ² .	M-091-10 and Proposed M-091 ² .
MLLW-08 – Unique Waste	3.3.2	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
MLLW-09 – Lead-Acid and Cadmium Batteries	3.3.2	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .

Table 7-1. Summary of Characterization Information for Each Treatability Group.

Treatability Group Name	Report section	Additional characterization activities	Planned characterization schedule	Related Tri-Party Agreement milestone
MLLW-10 – Reactive Metals	3.3.2	As necessary to meet treatment facility waste acceptance criteria ¹ .	Proposed M-091 ² .	Proposed M-091 ² .
PUREX Plant	4.3.1	To be determined via Tri-Party Agreement Action Plan, Section 8.0	To be determined via Tri-Party Agreement Action Plan, Section 8.0	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan.
PUREX Storage Tunnels	4.3.1	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	To be determined via Tri-Party Agreement Action Plan, Section 8.0.	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan..
Purgewater	3.1.8	Characterization performed as generated.	Ongoing.	None. Addressed in Appendix F of the Tri-Party Agreement (WHC-MR-0039).
SST Waste	5.2	Further information may be required.	Ongoing.	M-045, M-050, M-051, M-061, M-062, M-090.
TRUM-CH	4.1	As necessary to meet WIPP waste acceptance criteria.	Proposed M-091 ² .	Proposed M-091 ² .
TRUM- Large Box	4.2	As necessary to meet WIPP waste acceptance criteria.	Proposed M-091 ² .	Proposed M-091 ² .
TRUM-PCB	4.3	As necessary to meet WIPP waste acceptance criteria	Before WIPP closure (~2034).	None.
TRUM-RH	4.2	As necessary to meet WIPP waste acceptance criteria.	Proposed M-091 ² .	Proposed M-091 ² .

¹ Newly generated waste in these categories is fully characterized as generated. For waste in inventory before 1995, existing TSD record information will be reviewed and characterization corrections will be made as necessary based on existing acceptable knowledge.

² Characterization is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution.

CH	contact handled	RH	remote handled
DST	double-shell tank	SST	single-shell tank
ERDF	Environmental Restoration Disposal Facility	WESF	Waste Encapsulation and Storage Facility
LDR	land disposal restrictions	WIPP	Waste Isolation Pilot Plant
O/C	organic/carbonaceous	WRAP	Waste Receiving and Processing Facility
PCB	polychlorinated biphenyl		
PUREX	plutonium-uranium extraction (facility or process)		

8.0 SUMMARY OF TREATMENT AND DISPOSAL INFORMATION

This section summarizes the waste treatability groups and the volume of waste that will be treated for eventual disposal. Table 8-1 contains information on treatment and Table 8-2 contains the information on disposal. The treatability groups are in alphabetical order. Certain information from Tables 8-1 and 8-2 is reproduced in Table 2-2 of Volume 1.

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Table 8-1. Summary of Treatment Information for Each Treatability Group.

Treatability Group Name	Report section	Treatment process	Volume currently stored (m ³) ¹	Projected generation volume 2003 through 2007 (m ³) ¹	Projected volume to be treated 2003 through 2007 (m ³) ¹	Planned treatment period	Tri-Party Agreement milestone
221-T Containment Building	4.2	M-091 TRUM.	50	0		2025	None.
221-T Tank System	3.3.2	Not yet determined.	52	0	0	2025	None. T Plant Complex Closure Plan (DOE/RL-95-36).
222-S T8 Tunnel	3.3.2	Not yet determined.	0.2	0	0	2033	None. 222-S Closure Plan (DOE/RL-91-27).
241-CX Tank System	3.3.2	Not yet determined.	3.0	0	0	To be determined through future negotiations.	To be determined through future negotiations.
324 Building REC Waste	4.3.1	Not yet determined.	5.0	10	0	Before WIPP Closure (~2034).	M-089-00.
325HWTU	3.1.9	HWTU, Commercial - Thermal.	8.0	79	Proposed M-091 ²	Through 2025	None.
618-4 DU/Oil Drums	3.1.4	Commercial-thermal.	120	0	120	TBD under M-16-03I.	M-016-03I.
B Plant Cell 4	3.3.2	Not yet determined.	1.4	0	0	In accordance with Tri-Party Agreement Action Plan, Section 8.0	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan
B Plant Containment Building	3.3.2	Not yet determined.	290,000 kilograms	0	0	In accordance with Tri-Party Agreement Action Plan, Section 8.0	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan
Cesium and Strontium Capsules	5.2	Vitrification.	2.0	0	0	Treatment options are still being assessed.	M-092-05. Expected to be revisited in CY2003.
DST Waste	5.2	WTP.	88,000	72,000	0	2008-2028 per M-050.	M-050, M-051, M-061, M-062, and M-090.
ERDF - Treatment	3.1.7	ERDF treatment.	140	160,000	160,000	Through 2046.	Treatment and disposal are performed under a CERCLA decision document.
HSTF	3.3.2	Not yet determined.	2.1	0	0	To be determined through future negotiations.	To be determined through future negotiations.
LERF/ETF Liquid Waste	3.1.8	ETF.	29,000	420,000	420,000	Through 2032.	M-026-05 H, J, & L.

Table 8-1. Summary of Treatment Information for Each Treatability Group.

Treatability Group Name	Report section	Treatment process	Volume currently stored (m ³) ¹	Projected generation volume 2003 through 2007 (m ³) ¹	Projected volume to be treated 2003 through 2007 (m ³) ¹	Planned treatment period	Tri-Party Agreement milestone
MLLW-01 – LDR-Compliant Waste	3.1.10 & 3.1.6	No treatment required.	1,400	64	No treatment required.	NA	Proposed M-091 ² .
MLLW-02 – Inorganic Non-Debris	3.1.1	Commercial-Stabilization.	2,700	100	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-03 – Organic Non-Debris	3.1.3	Commercial-Thermal.	840	190	Proposed M-091 ²	Through 2046 ³	M-091-12a, M-091-12, and proposed M-091 ² .
MLLW-04A – O/C Hazardous Debris	3.1.3	Commercial-Thermal.	1,400	820	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-04B – Non-O/C Hazardous Debris	3.1.2	Commercial-Macro.	140	370	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-05 – Elemental Lead	3.1.2	Commercial-Macro.	430	82	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-06 – Elemental Mercury	3.2.2	Commercial Amalgamation.	13	7.4	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-07 – RH and Large Container	3.2.1	M-091 MLLW.	81	1,400	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-08 – Unique Waste	3.3.2	Not yet determined.	20	0	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-09 – Lead- Acid and Cadmium Batteries	3.3.2	Not yet determined.	8.4	6.4	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
MLLW-10 – Lead Acid and Cadmium Batteries	3.3.2	Not yet determined.	18	1.5	Proposed M-091 ²	Through 2046 ³	Proposed M-091 ² .
PUREX Plant	4.3.2	Not yet determined.	1.0	0	0	In accordance with Tri-Party Agreement Action Plan, Section 8.0	None. Determined via Section 8.0 of the Tri-Party Agreement Action Plan
PUREX Storage Tunnels	4.3.1	Not yet determined.	2,800	0	0	Coordinated with PUREX Plant waste.	None.
Purgewater	3.1.8	Solar evaporation at PSTF.	3,700	13,000	13,000	Ongoing.	None.
SST Waste	5.2	WTP.	120,000	0	0	2008-2028 per M-050.	M-050, M-051, M-061, M-062, and M-090.
TRUM-CH	4.1	WRAP Facility.	400	1,000	1,000	Before WIPP closure (~2034).	None.

Table 8-1. Summary of Treatment Information for Each Treatability Group.

Treatability Group Name	Report section	Treatment process	Volume currently stored (m ³) ¹	Projected generation volume 2003 through 2007 (m ³) ¹	Projected volume to be treated 2003 through 2007 (m ³) ¹	Planned treatment period	Tri-Party Agreement milestone
TRUM-Large Box	4.2	M-091 TRUM.	72	0	0	Proposed M-091 ² .	None.
TRUM-PCB	4.3	Not yet determined.	110	5.0	0	To be determined by WIPP.	None.
TRUM-RH	4.2	M-091 TRUM.	57	16	0	Before WIPP Closure (~2034).	None.

¹Volume numbers in this table have been rounded to two significant figures.

²Treatment is anticipated to be performed as necessary to support the results of the M-091 TPA dispute resolution .

³2046 is taken as the end of waste processing activities onsite.

DST	double-shell tank	SST	single-shell tank
ERDF	Environmental Restoration Disposal Facility	WESF	Waste Encapsulation and Storage Facility
NDA	nondestructive assay	WRAP	Waste Receiving and Processing Facility
PCB	polychlorinated biphenyls	WTP	Waste Treatment Plant
PUREX	plutonium-uranium extraction (facility or process)		

Table 8-2. Summary of Disposal Information for Each Treatability Group.

Treatability Group Name	Disposal location	Planned disposal period
221-T Containment Building	Not yet determined	To be determined by Canyon Disposition Initiative and/or T Plant Complex closure.
221-T Tank System	Not yet determined	Liquid fraction 2007/2008. Solid fraction to be determined by Canyon Disposition Initiative and/or T Plant Complex closure.
222-S T8 Tunnel	Mixed waste trenches.	2035
241-CX Tank System	Not yet determined.	To be determined through future negotiations.
324 Building Radiochemical Engineering Cell Waste	WIPP.	Before WIPP closure (~2035).
325 HWTU	Mixed waste trenches.	Through 2025
618-4 DU/Oil Drums	ERDF.	TBD under M-16-03I.
B Plant Cell 4	Not yet determined.	To be determined by Tri-Party Agreement Section 8.0.
B Plant Containment Building	Not yet determined.	To be determined by Tri-Party Agreement Section 8.0.
Cesium and Strontium Capsules	HLW Repository.	2028 per M-050.
DST Waste	HLW repository and onsite vaults.	2028 per M-050.
ERDF – Treatment	ERDF.	Through 2046.
HSTF	Not yet determined.	To be determined through future negotiations.
LERF/ETF Liquid Waste	SALDS.	Through 2032
MLLW-01 – LDR-Compliant Waste	Mixed waste trenches.	Through 2046 ¹
MLLW-02 – Inorganic Non-Debris	Mixed waste trenches.	Through 2046 ¹
MLLW-03 – Organic Non-Debris	Mixed waste trenches.	Through 2046 ¹
MLLW-04A – O/C Hazardous Debris	Mixed waste trenches.	Through 2046 ¹
MLLW-04B – Non-O/C Hazardous Debris	Mixed waste trenches.	Through 2046 ¹
MLLW-05 – Elemental Lead	Mixed waste trenches.	Through 2046 ¹
MLLW-06 – Elemental Mercury	Mixed waste trenches.	Through 2046 ¹
MLLW-07 – RH and Large Container	Mixed waste trenches.	Through 2046 ¹
MLLW-08 – Unique Waste	Mixed waste trenches.	Through 2046 ¹
MLLW-09 – Lead Acid and Cadmium Batteries	Mixed waste trenches.	Through 2046 ¹
MLLW-10 – Reactive Metals	Mixed waste trenches.	Through 2046 ¹
PUREX Plant	Not yet determined.	To be determined by Tri-Party Agreement Section 8.0.
PUREX Storage Tunnels	Not yet determined.	Coordinate with PUREX Containment Bldg. Waste.

Table 8-2. Summary of Disposal Information for Each Treatability Group.

Treatability Group Name	Disposal location	Planned disposal period
Purgewater	ERDF.	Will be determined as part of the remaining revisions being made to WHC-MR-0039.
SST Waste	HLW repository and onsite vaults.	2028 per M-050.
TRUM-CH	WIPP.	Through WIPP closure (~2035).
TRUM-Large Box	WIPP.	Through WIPP closure (~2035).
TRUM-PCB	WIPP.	Through WIPP closure (~2035).
TRUM-RH	WIPP.	Through WIPP closure (~2035).

¹2046 is taken as the end of waste processing activities onsite.

DST double-shell tank
ERDF Environmental Restoration Disposal Facility
PCB polychlorinated biphenyl
PUREX plutonium-uranium extraction (Facility)

SST single-shell tank
WESF Waste Encapsulation and Storage Facility
WRAP Waste Receiving and Processing Facility

9.0 TRI-PARTY AGREEMENT INFORMATION

The Tri-Party Agreement is a legal document covering Hanford Site environmental compliance and cleanup activities. The Tri-Party Agreement Action Plan implements the agreements among Ecology, DOE (both the DOE-RL and the DOE- U.S. Department of Energy, Office of River Protection [ORP]), and the EPA.

9.1 DOCUMENTATION AND RECORDS

The Tri Party Agreement Action Plan, Section 9.0, "Documentation and Records", defines the documents to be generated under the Action Plan, the classification and listing of primary and secondary documents, and the record systems to be implemented to preserve and access the documentation. The Action Plan, Section 12, "Changes to the Agreement", establishes a process for the parties to propose and implement changes to elements of the Agreement, the Action Plan, and Appendices, and supporting plans (specifically, the annual update of the LDR report).

9.2 LAND DISPOSAL RESTRICTIONS TRI-PARTY AGREEMENT MILESTONES

Table 9-1 identifies the current, active Tri-Party Agreement milestones through 2028. Pending TPA change control actions are not included.

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-013-00N	12/31/03	Submit 1 RI/FS (RFI/CMS) Work Plans (For 200 NPL Area)
M-013-00O	12/31/04	Submit 1 RI/FS (RFI/CMS) Work Plans (For 200 NPL Area)
M-015-00	12/31/08	Complete The RI/FS (or RFI/CMS) Process For All Operable Units
M-015-00C	12/31/08	Complete All 200 Area Non-Tank Farm OU Pre-Rod Site Investigations...
M-015-38A	3/31/03	Submit 200-Cw Gable Mountain Pond/B Pond And Ditch Cool Water F.S
M-015-39A	9/30/03	Complete Chem. Sewer Group Field Work Thru Sample Collection & Analysis
M-015-39B	5/31/04	Submit 200-CS-1 Chemical Sewer Group RI Report
M-015-39C	11/30/05	Submit 200-CS-1 Chemical Sewer Group FS and Submit Proposed Plan
M-015-40B	5/31/03	Submit 200-CW-5 U Pond/Z-Ditches Cooling Water Group R.I. Report
M-015-40C	10/31/04	Submit 200-CW-5 Pond/Z Ditches Cooling Water Group FS and Submit
M-015-41C	3/31/04	Submit 200-TW-1 OU And 200-Tw-2 OU Fs And Proposed Plan
M-015-43B	6/30/04	Submit 200-PW-2 OU RI Report Including The Past Practice W. S.
M-015-43C	12/31/05	Submit 200-PW-2 OU Feasibility Study And Proposed Plan/Permit Mod
M-015-44A	12/31/05	Submit 200-MW-1 OU Remedial Investigation Report
M-015-44B	12/31/06	Submit 200-MW-1 OU Feasibility Study And Proposed Plan
M-015-46A	10/31/05	Submit 200 Area Chemical Laboratory Waste OU's R.I. Report
M-015-46B	9/30/06	Submit 200 Area Chemical Laboratory Waste OUs Feasibility Study
M-015-47	6/30/03	Submit Proposed Plan To EPA and/or Ecology To Conduct Remedial Actions...

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-016-00	9/30/24	Complete The Remedial Actions For All Operable Units
M-016-00A	12/31/12	Complete All 100 Area Remedial Actions
M-016-00B	9/30/18	Complete All 300 Area Remedial Actions
M-016-03H	12/31/03	Complete Remediation of The Waste Sites In The 300-FF-1 O.U.
M-016-03I	TBD	Complete Treatment of Drummed Waste From The 618-4 Burial Ground
M-016-13B	10/29/04	Complete Remediation And Backfill of 16 Liquid Waste Sites
M-016-26E	9/30/04	Complete Excavation And Removal of 100-B/C Process Effluent Pipelines
M-016-26F	2/28/05	Complete Backfill of 100 B/C Process Effluent Pipeline Excavation
M-016-27C	6/30/03	Complete 100-HR-3 Phase III, ISRM Barrier Emplacement
M-016-45	12/31/06	Complete the Interim Remedial Action For The 100 B/C Area
M-016-46	7/31/06	Initiate Remedial Actions for the Remaining 100 D Waste Sites
M-016-47	12/31/11	Complete the Interim Remedial Actions For The 100 D Area
M-016-48	7/31/05	Initiate Remedial Actions for the Remaining 100 F Wastes Sites
M-016-49	12/31/08	Complete the Interim Remedial Actions For The 100 F Area
M-016-50	7/31/07	Initiate Remedial Actions for the Remaining 100 H Wastes Sites
M-016-51	12/31/10	Complete the Interim Remedial Actions For The 100 H Area
M-016-52	7/31/09	Initiate Response Actions for the Remaining 100 K Wastes Sites
M-016-53	12/31/12	Complete the Interim Response Actions For The 100 K Area
M-016-54	7/31/08	Initiate Response Actions for the Remaining 100 N Wastes Sites
M-016-55	12/31/12	Complete the Interim Response Actions For The 100 N Area
M-016-56	12/31/08	Complete the Interim Remedial Actions For 100-IU-2 And 100-IU-6
M-016-60	12/31/06	Complete Interim Remedial Actions For High Environmental PR Waste Sites
M-016-61	12/31/08	Complete Interim Remedial Actions for Remaining High Envir Pr Waste Sites
M-016-62	12/31/12	Complete Interim Remedial Actions for 300-FF-2 Waste Sites
M-016-63	11/30/03	Submit Schedule & Tri-Party Agreement Milestones For 300-FF-2 Waste Sites
M-016-64	9/30/10	Complete Interim Remedial Actions for the Following 300-FF-2 Waste Sites
M-016-65	8/30/05	Submit A Schedule And Tri-Party Agreement M/S To Complete 300-FF-2 Int Remedial Act
M-016-66	9/30/04	Initiate Intermediate Design And Authorization Safety Analysis
M-016-67	3/31/07	Submit An Intermediate Design Report, Remediation Sched & TI/WP
M-020-00	12/31/08	Submit Part B Permit Applications Or Closure Plans For All RCRA TSD Units
M-020-00A	2/28/04	Submit Part B Permit Applications Or Closure/Post Closure Plans
M-020-00B	12/31/08	Submit Closure/Post-Closure Plans For 216 & 241 Area
M-020-29A	TBD	Submit Closure Plan for Sodium Storage & Reaction Facility
M-020-33	12/31/05	Submit 216-A-10 and A-36B Crib Closure/Postclosure Plan
M-020-39	11/30/05	Submit 216-S-10 Pond and Ditch Closure Plan to Ecology And EPA
M-020-54	12/31/08	Submit 241-Cx Tank System Closure/Postclosure Plan
M-020-56	6/30/03	Submit Canister Store Fac. Part B Dangerous Waste Permit App
M-020-57	6/30/03	Submit ILAW Disposal Facility Certified Part B Permit Application
M-023-25	9/30/04	Complete The Installation Of Liquid Observation Wells (LOWs)

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-023-25C	3/31/03	Complete The Installation Of (LOWs) & Begin Liquid Observation
M-023-25D	9/30/03	Complete The Installation Of (LOWs) & Begin Liquid Observation
M-023-25E	9/30/03	Procure Necessary EQ To Support Additional Low Monitoring Systems
M-023-25F	3/31/04	Complete The Installation of (LOWs) & Begin Weekly Liquid Observation Monitoring
M-023-25G	9/30/04	Complete Installation of Lows & Begin Weekly Liquid Monitoring
M-024-00O	12/31/03	Install RCRA Groundwater Monitor Wells At Rate Of Up To 50 In CY 03
M-024-00P	12/31/04	Install RCRA Groundwater Wells at a Rate Up To 50 Per C.Y.
M-024-00Q	12/31/05	Install RCRA Groundwater Wells at a Rate Up To 50 Per C.Y.
M-024-00R	12/31/06	Install RCRA Groundwater Wells at a Rate Up To 50 Per C.Y.
M-026-01M	4/30/03	Submit an Annual Hanford Land Disposal Restrictions Report
M-026-01N	4/30/04	Submit an Annual Hanford Land Disposal Restrictions Report
M-026-01O	4/30/05	Submit an Annual Hanford Land Disposal Restrictions Report
M-026-01P	4/30/06	Submit an Annual Hanford Land Disposal Restrictions Report
M-026-05J	8/31/03	Submit Development Status of Tritium Treatment Technology
M-026-05L	8/31/05	Submit Development Status of Tritium Treatment Technology
M-034-00A	7/31/07	Complete Removal of SNF Sludge, Debris & Water at DOE's K Basins
M-034-08	12/31/02	Initiate Full Scale K East Basin Sludge Removal
M-034-09-T01	1/31/05	Complete K Basins Rack & Canister Removal
M-034-10	8/31/04	Complete Sludge Removal From K Basins
M-034-12-T01	9/30/02	Complete Construction Of K East Basin Sludge And Water System
M-034-18B	7/31/04	Complete Removal Of All K Basin SNF
M-034-21-T01	10/31/05	Initiate Full Scale K West Basin Water Removal
M-034-22	8/31/06	Complete K West Basin Water Removal
M-034-23	9/30/04	Initiate Full Scale K East Basin Water Removal
M-034-24	9/30/05	Complete K East Basin Water Removal
M-034-25-T01	5/31/04	Complete Transfer of K E Basin Spent Nuclear Fuel To The K W Basin
M-034-27-T01	5/31/03	Complete Removal of SNF Equivalent to 1,242 Metric Tons Heavy Metal from the K-West Basin
M-034-28	12/31/03	Complete Removal of SNF Equivalent to 1,619 Metric Tons Heavy Metal from the K-West Basin
M-035-00	TBD	Complete Data Management Enhancements
M-035-09D	3/31/04	Conduct Biennial Assessments Of Information and Data Access Needs
M-035-09E	3/31/06	Conduct Biennial Assessments Of Information and Data Access Needs
M-042-00	TBD	Provide Additional Double-Shell Tank Capacity
M-043-00	6/30/05	Complete Tank Farm Upgrades
M-043-16	6/30/03	Start Construction Upgrades for Fifth Tank Farm
M-045-00	9/30/24	Complete Closure of all Single Shell Tank Farms
M-045-00B	9/30/06	Complete "Near Term" SST Waste Retrieval Activities
M-045-00C	4/30/02	Complete Renegotiation of Second Phase SST Waste Retrieval Activities
M-045-00D	6/30/11	Complete Renegotiation of the Remainder of the SST Waste Retrieval and Closure Program
M-045-02	TBD	Submit Annual Updates to SST Retrieval Sequence Document

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-045-02L	9/30/03	Submit Annual Update of SST Retrieval Sequence Document
M-045-02M	9/30/04	Submit Annual Update of SST Retrieval Sequence Document
M-045-02N	9/30/05	Submit Annual Update of SST Retrieval Sequence Document
M-045-02O	9/30/06	Submit Annual Update of SST Retrieval Sequence Document
M-045-02P	9/30/07	Submit Annual Update of SST Retrieval Sequence Document
M-045-02Q	9/30/08	Submit Annual Update of SST Retrieval Sequence Document
M-045-02R	9/30/09	Submit Annual Update of SST Retrieval Sequence Document
M-045-02S	9/30/10	Submit Annual Update of SST Retrieval Sequence Document
M-045-02T	9/30/11	Submit Annual Update of SST Retrieval Sequence Document
M-045-02U	9/30/12	Submit Annual Update of SST Retrieval Sequence Document
M-045-02V	9/30/13	Submit Annual Update of SST Retrieval Sequence Document
M-045-02W	9/30/14	Submit Annual Update of SST Retrieval Sequence Document
M-045-02X	9/30/15	Submit Annual Update of SST Retrieval Sequence Document
M-045-02Y	9/30/16	Submit Annual Update of SST Retrieval Sequence Document
M-045-02Z	9/30/17	Submit Annual Update of SST Retrieval Sequence Document
M-045-03C	9/30/05	Complete Full Scale Saltcake Waste Retrieval Technology Demonstration
M-045-03D	5/31/03	Complete S-112 Saltcake Waste Retrieval Technology Demo Design
M-045-03E	9/30/04	Complete S-112 Saltcake Waste Retrieval Technology Demo Construction
M-045-03F	TBD	Complete Full Scale Sludge/Hard Heel, Confined Sluicing ... At Tank C-104
M-045-03G	6/30/04	Complete C-104 Sludge/Hard Heel, Confined Sluicing & Robotic Demo
M-045-03H	9/30/04	Complete C-104 Sludge/Hard Heel, Confined Sluicing And Robotic
M-045-03I	9/30/06	Complete C-104 Sludge/Hard Heel, Confined Sluicing & Robotic Demo
M-045-05	9/30/18	Retrieve Waste From all Remaining Single-Shell Tanks
M-045-05A	9/30/06	Complete Initial Waste Retrieval From Tank S-102
M-045-05B	3/31/04	Complete S-102 Initial Retrieval Project Design
M-045-05C	11/30/05	Complete S-102 Initial Waste Retrieval Project Construction
M-045-05D	3/31/03	Establish Completion Date for the Second Tank, Initial Waste Retrieval
M-045-05E	6/30/06	Complete Second Tank Initial Retrieval Project Design
M-045-05F	TBD	Complete Second Initial Waste Retrieval Project Construction
M-045-05-T05	9/30/07	Initiate Tank Retrieval from Five Additional Tanks
M-045-05-T06	9/30/08	Initiate Tank Retrieval from Five Additional SST
M-045-05-T07	9/30/09	Initiate Tank Retrieval from Seven Additional SST
M-045-05-T08	9/30/10	Initiate Tank Retrieval from Eight Additional SST
M-045-05-T09	9/30/11	Initiate Tank Retrieval from Ten Additional SST
M-045-05-T10	9/30/12	Initiate Tank Retrieval from Twelve Additional SST
M-045-05-T11	9/30/13	Initiate Tank Retrieval from 14 Additional SSTs
M-045-05-T12	9/30/14	Initiate Tank Retrieval from 17 Additional SSTs
M-045-05-T13	9/30/15	Initiate Tank Retrieval from 20 Additional SST
M-045-05-T14	9/30/16	Initiate Tank Retrieval from 20 Additional SSTs

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-045-05-T15	9/30/17	Initiate Tank Retrieval from 20 Additional SSTs
M-045-05-T17	4/30/04	Submit Second Tank Initial Waste Retrieval Functions and Requirements Document
M-045-06	9/30/24	Complete Closure of all Single-Shell Tank Farms
M-045-06-T03	3/31/12	Initiate Closure Actions on OU Or Tank Farm Basis
M-045-06-T04	3/31/14	Complete Closure Actions on One OU Or Tank Farm
M-045-06-T06	6/30/04	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07A	6/30/06	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07B	6/30/08	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07C	6/30/10	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07D	6/30/12	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07E	6/30/14	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07F	6/30/16	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07G	6/30/18	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07H	6/30/20	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07I	6/30/22	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-06-T07J	6/30/24	Submit Tank Farm Closure/Post Closure Workplan Update
M-045-11	9/30/03	Complete 244-AR Vault Interim Stabilization
M-045-55	2/28/04	Submit Result of WMAs S-SX, T, TX-TY, And B-BX-BY And Related Act
M-045-55-T03	1/31/05	SST WMA Phase 1 RFI/CMS Work Plan Addenda For WMA T And WMA TX-TY
M-045-56	TBD	Complete Implementation Of Agreed-To Interim Measures
M-045-58	TBD	A Corrective Measures Study for Interim Corrective Measures
M-045-59	TBD	Control Surface Water Infiltration Pathways as Needed
M-045-60	TBD	DOE's RFI/CMS Work Plan for SST WMAs
M-046-00J	9/30/03	DST Space Evaluation
M-046-00K	9/30/04	Double-Shell Tank Evaluation
M-046-00L	9/30/05	Double-Shell Tank Evaluation
M-046-00M	9/30/06	Double-Shell Tank Evaluation
M-046-01I	2/28/03	Concurrence of Additional Tank Acquisition
M-046-01J	11/30/03	Concurrence of Additional Tank Acquisition
M-046-01K	11/30/04	Concurrence of Additional Tank Acquisition
M-046-01L	11/30/05	Concurrence of Additional Tank Acquisition
M-046-01M	11/30/06	Concurrence of Additional Tank Acquisition
M-047-00	2/28/18	Complete all Work Nec. in Support of the Acq. & Operations of HLW TSD Facilities
M-047-01	3/31/06	Complete Construction of the Transfer System from The 241-AP Tank
M-047-02	3/31/07	Complete Startup and T/O Activities for Required Transfer System
M-047-03A	2/28/07	Complete Startup and T/O Activities for Waste Retrieval & Mob Sys
M-047-04	6/30/07	Complete Startup and T/O Activities for Required Transfer System
M-047-05	5/31/04	Start Construction of Waste Retrieval and Mobil Sys LAW Waste Feed Tank
M-047-05A	4/30/06	Complete Startup And Turnover Activities For Waste Retrieval & LAW

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-047-06	6/30/10	Complete Negotiations of Add. Agreement Requirements For Treat Complex
M-048-00	9/30/07	Complete Tank Integrity Assessment Activities For Hanford's DST
M-048-02F	3/31/03	Submit To Ecology a Report Assessing Technology Development
M-048-11	9/30/03	Submit Results of (4) DST's Not Previously Examined
M-048-12	9/30/04	Submit Results of (4) DST's Not Previously Examined
M-048-13	9/30/05	Submit Results of (4) DST's Not Previously Examined
M-048-14	3/31/06	Written Integrity Report for the Double-Shell Tank System
M-048-15	9/30/07	Re-Examination of Six (6) DST's By Ultrasonic Testing
M-050-00	12/31/28	Complete Pretreatment Processing of Hanford Tank Waste
M-051-00	12/31/28	Complete Vitrification of Hanford High Level Tank Waste
M-061-00	12/31/28	Complete Pretreat & Immob of Hanford Low Activity Waste (Law)
M-062-00	12/31/28	Complete Pretreatment Processing and Vitrification of Hanford HLW & LLW
M-062-00A	2/28/18	Complete Pretreatment Processing And Vitrification of Hanford HLW
M-062-01G	7/31/03	Submit Semi-Annual Project Compliance Report
M-062-01H	1/31/04	Submit Semi-Annual Project Compliance Report
M-062-01I	7/31/04	Submit Semi-Annual Project Compliance Report
M-062-01J	1/31/05	Submit Semi-Annual Project Compliance Report
M-062-01K	7/31/05	Submit Semi-Annual Project Compliance Report
M-062-01L	1/31/06	Submit Semi-Annual Project Compliance Report
M-062-01M	7/31/06	Submit Semi-Annual Project Compliance Report
M-062-03	12/31/06	Submit DOE Petition For RCRA Delisting of Vitrified HLW
M-062-07A	10/31/03	Initial Erection of Low-Activity Waste Vitrification Facility
M-062-07B	11/30/05	Complete Assembly of Low Activity Waste Vitrification Melter #1
M-062-08	7/31/05	Submittal of Hanford Tank Waste Phase II Treatment Alt Report
M-062-09	12/31/07	Start (Hot) Commissioning - Phase I Treatment Complex
M-062-10	1/31/11	Start Commercial Operations - Phase I Treatment Complex
M-062-11	1/31/14	Submittal of Hanford Tank Waste Treatment Phase II Plan
M-062-12	TBD	Issuance of DOE Authorization To Proceed - Phase II Treatment
M-081-00	TBD	Complete FFTF Facility Transition & Initiate Surveillance
M-081-00-T02	TBD	Complete Transfer of Irradiated Fuel to Dry Cask Storage
M-081-00-T03	TBD	Complete Transfer of Irradiated Fuel to The PFP
M-081-00-T04	TBD	Complete Transfer of Special Fuel to INEL For Consolidated Storage
M-081-00-T05	TBD	Complete Auxiliary Systems Deactivation
M-081-02-T01	TBD	Submit Final Sodium Disposition/Evaluation Report Decision Point
M-081-03	TBD	Develop FFTF End Point Criteria Document
M-081-04	TBD	Complete FFTF Sodium Drain
M-081-04-T01	TBD	Complete Reactor and Heat Transport System Sodium Drain
M-081-04-T02	TBD	Complete interim Decay Storage Vessel and Sodium Drain
M-081-05	TBD	Submit FFTF Surveillance and Maintenance Plan

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-081-06	TBD	Complete PCB Transformer Disposal
M-083-00A	9/30/16	Complete PFP Facility Transition & Selected Disposition Activities
M-083-12-T01	12/31/03	Submit PFP Legacy Pu Holdup Removal Plan To Ecology
M-083-13	4/30/04	Complete Repackaging of PFP Mixed Waste Residues & Ship To CWC
M-083-14	9/30/06	Complete 100% of the Legacy Pu Holdup Removal
M-083-20	9/30/03	Submit Facility Transition End Point Criteria Document
M-083-22	9/30/08	Submit To Ecology an Engineering Evaluation/Cost Analysis
M-083-23	3/31/09	Complete Negotiations as Needed for Revising PFP Milestones
M-083-24	6/30/12	Submit S&M Plan Pursuant to Agreement Section 8.5.4
M-083-30	7/31/03	Submit 241-Z Waste TSD and Glovebox HA-20mb Closure Plan
M-083-31	6/30/05	Discontinue Waste Discharges From The 241-Z Tanks to Tank Farms
M-083-32	9/30/11	Complete Closure of the PFP 241-Z TSD Unit
M-083-40	9/30/06	Complete Transition & Dismantlement of The 232-Z Building Incinerator
M-083-41	9/30/10	Complete Transition and Dismantlement of the 216-Z-9 Crib Complex
M-083-42	9/30/11	Complete Transition & Dismantlement of 241-Z Waste Treatment Facility
M-083-43	9/30/13	Complete Transition of 242-Z Waste Treat Facility & 236-Z PRF
M-083-44	9/30/15	Complete Transition of 234-Z&Za, 243-Z, 291-Z & 291-Z-1 Facilities
M-089-00	10/31/05	Complete Closure of Non-Permitted Mixed Waste Units In 324 Building REC B&D Cells
M-090-00	TBD	Complete Acquisition or Mod of Facilities For IHLW & ILAW Storage & Disposal
M-090-08	2/28/05	Complete ILAW Disposal Facility Construction
M-090-09-T01	5/30/03	Complete ILAW Disposal Facility Detailed Design
M-090-10	8/31/08	Initiate Placement of ILAW Waste in ILAW Disposal Facility
M-090-11	6/30/09	Complete Canister Storage Facility Construction
M-091-00	TBD	Complete Acquisition of Facilities for Disposal of TRU/TRUM, LLMW & Gtc3
M-091-01	TBD	Complete Acquisition of New Facilities For Post 1970 TRU/TRUM
M-091-05-T01	12/31/02	Complete & Submit TRU/TRUM Retrieval & Proc Facility Design Criteria
M-091-06-T01	9/30/03	Award Necessary Privatized Contracts for RH & Large Size TRU/TRUM
M-091-07	9/30/04	Complete Project W-113 for Post 1970 TRU/TRUM Retrieval
M-091-08-T01	6/30/05	Complete Construction & Initiate Hot Operation of RH & Large Size TRU/TRUM
M-091-12	12/31/05	Complete Thermal Treatment & Disposal of an Additional 360 M3 of CH LLAW
M-091-12A	12/31/04	Complete Thermal Treatment & Disposal of at Least 240 M3 CH LLMW
M-091-14-T01	10/31/03	Award Commercial Contracts for Treatment of RH & Large Size LLMW
M-091-15	6/30/08	Complete Acquisition of Facilities & Init Treat of RH & CH LLMW
M-091-20	12/31/02	T Plant is ready to receive 1 st Canister of SNF Floor and Pit Sludge
M-091-21-T01	11/29/03	Complete Physical Activities at T Plant Necessary to Store Floor & Pit Sludge
M-091-22	2/29/04	T Plant Is Ready To Receive Canisters & Fuel Wash Sludge From K Basins
M-092-00	TBD	Complete Acquisition of Facility for Store, Treat/Process of Cs/Sr, Na & SCW
M-092-01	12/31/09	Complete Commercial Disposition &/Or Acquisition of Facilities For Sitewide Consol
M-092-05	6/30/03	Include Hanford. Cs/Sr "Treatment &/Or Repack Parameters" In DOE RFP

Table 9-1. Tri-Party Agreement Milestones Through 2028.

MILESTONE CONTROL NUMBER	DUE DATE	MILESTONE TITLE
M-092-06-T02	9/30/06	Complete Disposal of 1020 Tons of UU and 5 Tons Of Source Material
M-092-09	TBD	Complete Acquisition of Facilities For Store, Treat/Proc of Sodium
M-092-10	TBD	Submit Hanford Site Sodium PMP
M-092-11-T01	9/30/04	Complete Disposition Options for all Hanford Non-Rad Sodium
M-092-12	9/30/06	Complete Acquisition of Storage Facilities for Disposal Of SCW
M-092-16	9/30/06	Complete Removal & Transfer & Initiate Storage of Phase-III 300 Area SCW
M-093-00	TBD	Complete Final Disposition of all 100 Area Surplus Production Reactor Buildings
M-093-11	9/30/04	Complete 105-F Interim Safe Storage
M-093-17	12/31/04	Complete 105-D Reactor Interim Safe Storage
M-093-18	12/31/05	Complete 105-H Reactor Interim Safe Storage
M-093-19	9/30/09	Submit 105/109-N Reactor Interim Safe Storage Design Report
M-093-20	9/30/12	Complete 105-N Reactor Interim Safe Storage
M-093-22	9/30/11	Complete 105-KE And 105-KW Reactor Interim Safe Storage
M-093-23	7/31/06	Submit Engineering Evaluation/Cost Analysis (EE/CA) For KE/KW Reactors
M-093-24	9/30/06	Submit EE/CA or N Reactor ISS
M-093-25	9/30/05	Submit An Engineering Evaluation Of The Final Surplus Reactor Disposition
M-094-00	9/30/18	Complete Disposition of 300 Area Surplus Facilities
M-094-01	11/30/03	Submit A Schedule and Tri-Party Agreement Milestones For Facility Disposition
M-094-03	9/30/10	Complete Disposition of Surplus Facilities:
M-094-04	8/30/05	Submit A Schedule and Tri-Party Agreement Milestones

CDD	conceptual design document	PMP	project management plan
CH	contact handled	RCRA	<i>Resource Conservation and Recovery Act of 1976</i>
DOE	U. S. Department of Energy	REC	Radiochemical Engineering Cell
DST	double-shell tank	RFI	RCRA facility investigation
EIS	Environmental Impact Statement	RH	remote handled
ERDF	Environmental Restoration Disposal Facility	RI/FS	remedial investigation/feasibility study
F&R	Functions and requirements	ROD	Record of Decision
FDC	Functional Design Criteria	SCW	special-case waste
HL	high level	SNF	spent nuclear fuel
HLW	high-level waste	SST	single-shell tank
IHLW	immobilized high-level waste	TBD	to be determined
ILAW	immobilized low-activity waste	TRUM	transuranic mixed
LAW	low-activity waste	TSD	treatment, storage, and/or disposal
LLMW	low-level mixed waste	TWRS	Tank Waste Remediation System
LLW	low-level waste	WIRD	waste information requirements document
MW	mixed waste	WMA	Waste Management Area
NPL	National Priorities List		
OU	operable unit		
PFP	Plutonium Finishing Plant		

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